PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

March 15, 2024

The Honorable Gavin Newsom
Governor of California
State Capitol, Suite 1173
Sacramento, CA 95814

SUBJECT: Calendar Year 2023 Report of State Safety Oversight Activities for Rail Fixed Guideway Public Transportation Systems in California

Dear Governor Newsom:

As required by Title 49 of the Code of Federal Regulations, Part 674.13(a)(7), attached is the *Calendar Year 2023 Report of State Safety Oversight Activities for Rail Fixed Guideway Public Transportation Systems in California*. The Report will also be posted to the Commission's website on Friday, March 15, 2024.

The California Public Utilities Commission is the designated State Safety Oversight Agency for rail fixed guideway public transportation systems in California. Federal regulation requires us to annually provide this report to your office, the board of directors (or equivalent entity) of the rail fixed guideway public transportation systems in California that receive federal funding, and the Federal Transit Administration.

Sincerely Yours,

Pat Tsen for
Rachel Peterson

Digitally signed by Pat Tsen for Rachel Peterson
Date: 2024.03.12 15:32:36 -07'00'

Pat Tsen for
Rachel Peterson
Executive Director

Enclosure

Cc:
Veronica Vanterpool, Acting Administrator, Federal Transit Administration
Bevan Dufty, President of Board of Directors, Bay Area Rapid Transit District
Karen Bass, Chair of Board of Directors, Los Angeles County Metro Trans. Authority
Jewel Edson, Chair of Board of Directors, North County Transit District
Tam T. Nguyen, Chair of Board of Directors, Orange County Transportation Authority
Patrick Kennedy, Chair of Board of Directors, Sacramento Regional Transit District
Stephen Whitburn, Chair of Board of Directors, San Diego Metropolitan Transit System
Amanda Eaken, Chair of Board of Directors, San Francisco Municipal Trans. Agency
Cindy Chavez, Chair of Board of Directors, Santa Clara Valley Transportation Authority

CALENDAR YEAR 2023
REPORT OF
STATE SAFETY OVERSIGHT ACTIVITIES
FOR
RAIL FIXED GUIDEWAY PUBLIC TRANSPORTATION SYSTEMS
IN CALIFORNIA

California Public Utilities Commission

Rail Safety Division

Roger Clugston, Director

March 15, 2024

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EXECUTIVE SUMMARY

The California Public Utilities Commission (CPUC) regulates the safety and security of 15 rail transit agencies (RTAs) in California. Eight of these RTAs are jurisdictional to and funded in part by the Federal Transit Administration (FTA). The Rail Safety Division's (RSD) Rail Transit Safety Branch (RTSB) is responsible for the CPUC's rail transit safety oversight program.

This report is part of the CPUC's annual reporting requirements regarding its rail transit safety program. There are two elements of annual reporting to FTA that the CPUC must meet. In order to comply with the regulations established by the FTA, all State Safety Oversight Agencies (SSOA) must upload certain required documents and data regarding their oversight activities each calendar year (CY) into an FTA online reporting system. The CPUC must submit these documents and data by March 15 of each year that include the following information:

- Summary of its oversight activities for the previous year.
- Description of the causal factors of accidents identified through investigation and identifies the status of corrective actions.
- Any changes to the Public Transportation Agency Safety Plans of each FTA-regulated RTA; and
- The level of effort by the SSOA in carrying out its oversight activities.

In addition, FTA regulations require that at least once a year, the SSOA report the status of the safety of each RTA under their jurisdiction which receives federal funding from the FTA to their Governor, the FTA, and the board of directors, or equivalent entity, of RTAs.

This report summarizes the data and information submitted to the FTA's online reporting system, outlining CPUC's rail transit safety program and RTSB's activities for CY 2023. Specifically, this report summarizes the CPUC staff hours and core activities that comprise the safety oversight effort of the program and the audit, inspection, investigation, and capital project oversight activities conducted in carrying out the program in CY 2023. In addition, data and information for all RTAs, information regarding the types of accidents each RTA has reported, and the primary causal factors for those accidents are discussed.

CPUC Staff Resources Devoted to Rail Transit Safety Oversight

In CY 2023, CPUC staff (including staff from RTSB and other RSD branches, and the Legal and Administrative Law Judges Divisions) performed 59,248 hours of safety and security oversight activities during the reporting period, for both non-FTA funded and FTA funded RTA's, this was a 6% decrease over the previous year. This decrease is primarily due to vacancies.

Due to the recent expansion of rail transit systems and the projects approved and under construction or in final engineering, as well as new FTA requirements for risk-based inspections, RSD is considering the need for additional staffing resources to complete its safety oversight work.

Field Inspections of Rail Transit Facilities, Vehicles, and Operations

RTSB inspectors conducted 583 inspections during CY 2023, while participating in numerous accident investigations. This was a 7.8% decrease from the previous year. The decrease was due to a shortage in the number of inspectors compared to the previous year.

Accident Investigations

RTAs reported 320 rail transit accidents during CY 2023. CPUC staff investigated and/or reviewed and approved most of the RTA reports for these accidents, however some still remain open and under investigation. The purpose of the accident investigation reports is to assure the RTA identified the causal and contributory factors leading to the accident to prevent recurrence. The largest percentage (approximately 46.9%) are related to collisions with vehicles at rail crossings or along street-running transit lines. Data provided herein indicates the number and types of accidents for all agencies and also by individual RTA.

Capital Projects

CPUC staff spend a significant portion of their time on safety oversight of RTA capital projects. California RTAs have numerous capital projects, particularly in the Los Angeles area as they prepare for the International Federation of Association Football (FIFA) World Cup matches in 2026 and the 2028 Olympics City of Los Angeles will be hosting. Capital projects include new vehicle procurement projects, line extensions for service to new areas, new train control systems, seismic retrofit projects, and others. There are many major rail transit projects in California that are in active stages of construction, as detailed herein. The number of hours CPUC staff have spent has increased by over 40% from 4,398 in 2018 to 6,224 in 2023, which requires additional meetings, inspections, and monitoring.

Corrective Action Plans

CPUC staff reviewed 558 Corrective Action Plans (CAPs) during CY 2023; an 18.6% decrease from the previous year. CAPs are generated from accident investigations, identified system hazards, inspections, triennial audits, internal safety audits (conducted by RTAs), consumer complaints, and potentially other sources. CPUC staff approved the closure of 296 open CAPs. The remainder are in various stages of completion and CPUC staff continue to monitor their progress.

Enforcement Actions

CPUC staff did not initiate new enforcement actions in CY 2023.

BACKGROUND

The US Congress enacted, and President Obama signed into law, the Moving Ahead for Progress in the 21st Century Act (MAP-21) on July 6, 2012. Among several other things, MAP-21 required the FTA to adopt a comprehensive Public Transportation Safety Program, one element of which is to strengthen the rail transit State Safety Oversight program of the FTA required by 49 CFR Part 659 in effect at that time, and which was replaced by Part 674.

The CPUC has a long-standing rail transit safety oversight program which pre-dates the federal program. The federal program began in the early 1990's, and the CPUC was given authority by the California legislature as early as the mid-1950's over the safety of rapid transit systems in California, at first by individual RTAs as they were created. In the 1970's, during the construction of the Bay Area Rapid Transit (BART) system, that authority was broadened by the legislature to include all systems. Specifically, California Public Utilities Code § 99152[1] makes all fixed guideway public transportation systems in California planned, acquired, or constructed, on or after 1979 subject to the regulations of the CPUC. The CPUC has developed a rigorous and comprehensive program over the years to assure the safety of systems under its jurisdiction. The CPUC has adopted Strategic Directive Statements that collectively define the universe of results the CPUC expects our organization to achieve, and RTSB participates in that process and its safety oversight activities support achieving many of those Strategic Directives.

On October 13, 1992, pursuant to the requirements of the federal Intermodal Surface Transportation Efficiency Act of 1991, Governor Pete Wilson designated the CPUC as the state agency charged with overseeing the development and implementation of safety plans for all fixed guideway transit systems in California, referred to as the State Safety Oversight Agency (SSOA) by the FTA. Subsequently, in 1996 the FTA adopted 49 CFR Part 659, which was the federal regulation for SSOAs such as the CPUC, which describes requirements to meet regarding its public transportation fixed guideway safety oversight obligations.

MAP-21 requires the FTA to develop certification requirements for SSOAs, such as the CPUC, and provides for grants to eligible states to develop or carry out rail fixed guideway public transportation

[1] Public Utilities Code §99152 states "*Any public transit guideway planned, acquired, or constructed, on or after January 1, 1979, is subject to regulations of the Public Utilities Commission relating to safety appliances and procedures. The commission shall inspect all work done on those guideways and may make further additions or changes necessary for the purpose of safety to employees and the general public. The commission shall develop an oversight program employing safety planning criteria, guidelines, safety standards, and safety procedures to be met by operators in the design, construction, and operation of those guideways. Existing industry standards shall be used where applicable. The commission shall enforce the provisions of this section.*"

safety oversight programs. The FTA developed interim certification requirements based on the Congressional direction provided by MAP-21 until it took the steps to develop regulations to strengthen 49 CFR Part 659. On October 1, 2013, the FTA certified the CPUC SSOA program as one of only two in the nation whose existing program met all interim certification requirements and thus was made eligible for grant funding. Subsequently, the CPUC issued Resolution ST-169 (10/2/2014), which authorized CPUC staff to apply for the available grant funding for the CPUC's SSOA program. On July 2, 2015, the FTA approved the CPUC's first SSOA grant funding application. The CPUC has applied for and received nine grants thus far totaling $40,730,840.

As required by MAP-21, to strengthen the SSOA program requirements of 49 CFR Part 659, the FTA adopted new requirements in 49 CFR Part 674, which became effective on April 15, 2016. Under the MAP-21 requirements, three years from that date (April 15, 2019) 49 CFR Part 659 was rescinded and only 49 CFR Part 674 provides authority for the SSOA program.

With the adoption by the FTA of 49 CFR Part 674, the CPUC made changes to its fixed guideway public transportation safety oversight program in 2017 and 2018 to attain FTA certification under Part 674 requirements. The CPUC submitted its Certification Application to the FTA and obtained certification on October 23, 2018, well ahead of the April 15, 2019, deadline.

To comply with the new regulations in 49 CFR Part 674.13(a)(7) and 49 CFR 674.39 (a)(3), every SSOA that oversee Rail Fixed Guideway Public Transportation Systems (RFGPTS, as defined in 49 CFR Part 674) must submit an Annual Report that summarizes its oversight activities for the preceding 12 months. This report describes the causal factors of accidents identified through investigation, and identifies the status of corrective actions, changes to Public Transportation Agency Safety Plans, and the level of effort by the SSOA in carrying out its oversight activities. Accordingly, this report provides the data required for CY 2023.

OVERVIEW OF CPUC'S RAIL TRANSIT SAFETY OVERSIGHT PROGRAM

The CPUC currently oversees 15 RTAs, of which eight receive FTA funding and are thus subject to FTA regulations. The remaining seven do not receive FTA funding and are not subject to FTA regulations.

RTAs Subject to FTA Regulations

- Bay Area Rapid Transit District (BART)
- Los Angeles County Metropolitan Transportation Authority (LACMTA or Metro)
- North [San Diego] County Transit District (NCTD or Sprinter)
- Orange County Transportation Authority (OCTA or OC Streetcar) (currently under construction)
- San Francisco Municipal Transportation Agency (SFMTA or Muni)
- Sacramento Regional Transit District (SRTD)
- San Diego Trolley, Inc. (SDTI)
- Santa Clara Valley Transportation Authority (VTA)

RTAs Not Subject to FTA Regulations

- Americana at Brand Trolley
- Angels Flight Railway Company (funicular)
- Getty Center Museum Automated People Mover (APM)
- The Grove Trolley
- Los Angeles World Airports (LAWA) Automated People Mover (currently under construction)
- Sacramento County Department of Airports (SCDOA) Automated People Mover
- San Francisco International Airport (AirTrain) Automated People Mover

In addition, the following systems are in various stages of development and have not yet been awarded full grant funding from the FTA:

- Los Angeles Streetcar (City of Los Angeles)
- Inglewood Transit Connector Project

Rail Transit Safety Branch Structure

RTSB is responsible for conducting the CPUC's rail transit safety oversight program activities. RTSB has 33 authorized staff positions to provide effective safety oversight of the rail transit and other fixed guideway systems under the CPUC's jurisdiction. RTSB has two Sections: Rail Transit Safety Section (engineers and analysts) and Rail Transit Operations Safety Section (field inspectors). Each Section has Supervisors and Senior Engineers or Senior Inspectors to guide their respective teams in Northern and Southern California as shown in Figure 1.

FTA requires SSOAs to develop qualified staff to conduct the rail transit safety oversight activities and provide them a minimum level of initial and refresher training pursuant to 49 CFR Part 672 (FTA's

Public Transportation Safety Certification Training Program rules). CPUC staff are highly qualified, and RTSB developed and submitted to the FTA a Technical Training Plan (TTP) as part of the FTA certification process. RTSB annually reviews, updates as necessary, and provides the FTA the latest version of its TTP.

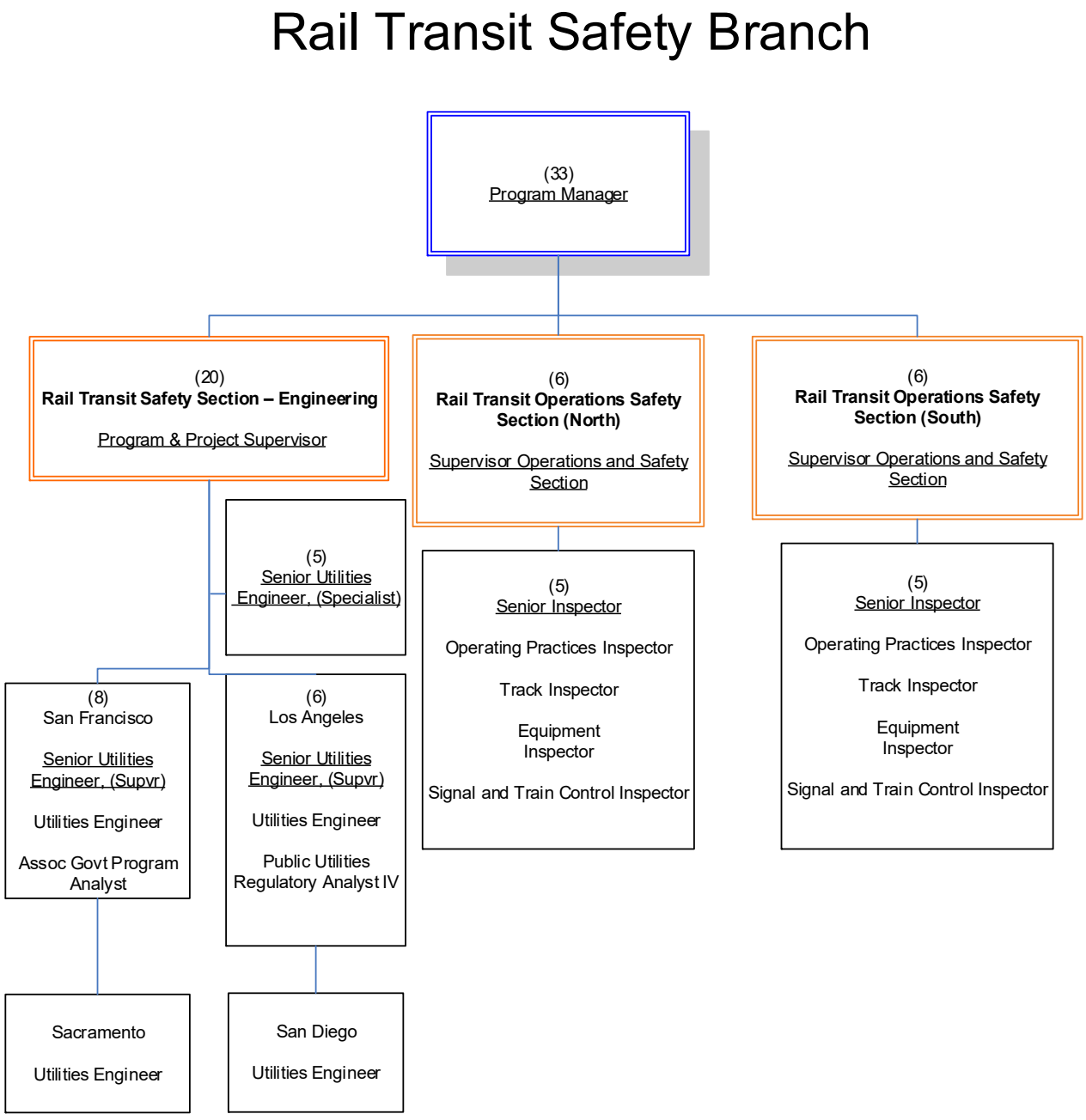


Figure 1: RTSB Organizational Chart

RTSB's State Safety Oversight Agency Program Standard – Procedures Manual

49 CFR Part 674.27 requires SSOAs to adopt and distribute a written program standard (procedures manual) and at least once a year submit it to the FTA with an indication of any revisions made. Accordingly, RTSB's *Program Standard – Procedures Manual State Safety and Security Oversight of Rail Fixed Guideway System* (Program Standard) identifies staff positions responsible for, and describes the practices to be followed in, conducting its SSOA program; sets forth the processes and procedures RTSB uses in implementing the various aspects of the safety oversight program; and is posted on the CPUC's web site at www.cpuc.ca.gov/rtsb .

RTSB's Program Standard includes, but is not limited to:

- System safety and security program management and oversight of the design, construction, safety certification, internal safety and security audits, operation and maintenance of rail fixed guideway transportation systems.
- Review and approval of RTA's Public Transportation Agency Safety Plan, System Security Plan, Safety Certification Plans (SCPs), accident investigation procedures, accident investigation reports, annual internal safety and security audit reports, hazard management program, and corrective action plans and schedules.
- Reporting and investigating events (including accidents) and hazards.
- Performing triennial audits.
- Inspections.
- Hazard management.
- Handling formal and informal complaints.
- Procedure for Enforcement Actions.

FTA Audit of CPUC's State Safety Oversight Program for RFGPTS

49 CFR Part 674.11 requires the FTA to audit each state's compliance with their SSO program at least triennially. An FTA audit team conducted the on-site portion of CPUC's triennial audit from July 11–19, 2022. The FTA audit team requested significant documentation and records in advance, and additional supporting documentation, as necessary, during the on-site portion. In addition to interviewing CPUC staff and reviewing CPUC records, the FTA audit team also interviewed RTA personnel on-site.

CPUC received the FTA report on January 9, 2023. The FTA audit team identified seven findings of non-compliance in the FTA report. During CY 2023, CPUC staff worked with FTA to close out all identified findings of non-compliance. To date, CPUC has three out of the seven findings still outstanding that remain in various stages of being finalized to be closed in CY 2024.

RESPONDING TO SERVICE IMPACTS DUE TO NATURAL EVENTS

Impacts from Weather Events

Due to recent severe weather event experienced over the course of the year, CPUC leadership has been interested in impacts on services provided by RTAs under CPUC jurisdiction due to natural events, such as heavy rains, high heat events, earthquakes, etc. due to CPUC's role in the state-wide California Governor's Office of Emergency Services (Cal OES) group that may be convened when such events occur. California has been experiencing more atmospheric weather events than in the past.

CPUC asked RTAs to submit a report using our accident reporting webform system. To facilitate reporting of impacts to RTA systems and to assist CPUC staff as well, CPUC added a separate category for these natural caused events on its webform as shown below:

> **Service Impacts due to Natural Events**
> All impacts on service due to heavy rains, high heat events (including electric outage due to high heat), earthquakes, flooding, etc. excluding cautionary speed restrictions.

DATABASE SYSTEM UPDATES

Rail Safety and Security Information Management System (RSSIMS)

The CPUC's RSD uses a centralized database called Rail Safety and Security Information Management System (RSSIMS). RSD is currently undertaking a project to replace the existing outdated version of RSSIMS, which will ensure the database meets current state requirements and provides enhanced features. The RSSIMS build phase began in September 2022 and started the testing phase at the beginning of the fourth quarter of 2023. Testing will continue into the second quarter of 2024. The expected launch of the database will be in the second quarter of 2024.

SUMMARY OF OVERSIGHT ACTIVITIES OF ALL RAIL TRANSIT AGENCIES IN CALENDAR YEAR 2023

Summary of CPUC Safety Oversight Activities

In typical years CPUC's SSOA activities fall into the following major categories:

- Conduct comprehensive triennial audits of RTAs.
- Perform ongoing inspections of RTA facilities, operations, and construction projects to assess compliance with federal and state regulations, including GOs.
- Monitor RTA operational and safety activities.
- Evaluate new Safety Certification Plans covering new major projects.
- Evaluate and recommend RTA safety plans for Commission approval.
- Make recommendations to CPUC leadership to develop new, or modify existing, CPUC General Orders (GOs) related to RTA safety.
- Facilitate communication between the FTA and RTAs by notifying RTAs of all FTA Safety Directives and Safety Advisories.
- Collect data requested by the FTA from RTAs.
- Assess RTA compliance with industry standards and with the RTAs' own operating procedures.
- Review and approve accident investigation reports prepared by RTAs.
- Participate in the RTA accident or other investigations when necessary or appropriate.
- Participate in National Transportation Safety Board (NTSB) investigations when they occur at jurisdictional RTAs in California.
- Conduct its own investigations of certain accidents if RSD management deems necessary.

As shown in Table 1 below, during CY 2023 CPUC staff (including RTSB, as well as CPUC staff from the Rail Crossings and Engineering Branch of RSD, the Legal Division, and the Administrative Law Judges Division) spent 59,384.0 (56,807.50 for FTA funded RTAs plus 2,576.50 for non-FTA funded RTAs) hours in carrying out its safety and security oversight activities.

	Total Hours			
	2022		2023	
Program Activity	Non-FTA Funded	FTA Funded	Non-FTA Funded	FTA Funded
Developing Policy/Standards, Supporting Management, Special Projects	0.0	8,279.0	20.0	9,416.7
Other Transit Safety Oversight/Investigations	736.8	8,449.50	1,188.5	6,857.5
Inspections	622.0	10,889.0	690.0	11,689.5
Accident Investigations	2.0	6,090.5	0.0	5,412.0
Managing/Supervising	0.0	9,298.0	2.0	9,133.0
Certifying Capital Projects	186.3	6,248.5	656.5	5,567.8
Triennial Audits	133.0	3,673.3	19.5	345.5
Miscellaneous *	0.0	3,076.1	0.0	3,979.8
Rail Transit Crossings	0.0	2,726.50	0.0	2,641.5
Training (receiving and giving)	0.0	2,208.1	0.0	1,730.3
Administrative Law Judges Division/Legal Division	0.0	250.0	0.0	34.0
Total	1,680.0	61,188.4	2,576.5	56,807.5
Total Staff Work Hours	62,868.4		59,384.0	

***Miscellaneous includes – Administrative Submittals, Responses to Public Records Act Requests, Responses to FTA inquiries, Responses to general inquiries, and Staff Meetings.**

Table 1: Summary of SSOA Program Staff Activities for Calendar Years 2022 and 2023

Rail Transit Inspections

Currently, California is one of only a few states to have inspectors for its rail transit oversight program (in addition to inspectors in CPUC's Railroad Operations and Safety Branch for freight and commuter rail systems) with broad experience in specific rail transit disciplines that are core to the industry, who are primarily out in the field conducting facility, equipment, and operations inspections. The CPUC has developed a rigorous inspection program to determine whether the plans, procedures, processes, and training outlined in the various Standard Operating Procedures, safety plans, and other RTA documents are carried out by RTA employees in the field as they operate and maintain their system. This has become one of the most valuable components of the CPUC's SSOA program. Since its inception, RTSB inspectors have found RTA employees/contractors in the field straying from the established written procedures, potentially leading to failures and sometimes accidents.

On November 15, 2021, President Biden signed the Bipartisan Infrastructure Law (BIL), enacted as the Infrastructure Investment and Jobs Act, which continues the public transportation safety program. The BIL added provisions directing the FTA to issue a Special Directive to each SSOA on the development and implementation of risk-based inspection programs. Since California has an existing inspection program, it needs to make minor adjustments to its existing program to comply with the new federal requirements. In CY 2023, RTSB management started working closely with FTA and collaborating with RTAs to revise existing procedures in order to meet the requirements of FTA's Special Directive on establishing a risk-based inspection program.

RTSB inspectors performed 583 inspections in CY 2023. RTSB's inspection program is divided into the Northern California inspection team and Southern California inspection team. Each team has a supervisor, a senior inspector, and one inspector in each of the four rail transit disciplines (areas of expertise): (1) track, (2) signal and train control, (3) equipment/mechanical (rail vehicles), and (4) operating practices.

RTSB inspectors conduct both announced and unannounced inspections. Any findings of the inspections are discussed with RTA personnel before RTSB inspectors depart from the inspection site. Often, RTSB inspectors conduct joint inspections in shared rail corridors with inspectors from the CPUC's Railroad Operations and Safety Branch and/or the Federal Railroad Administration. After each inspection, RTSB senior inspector sends an inspection report to the RTA. If the inspection identifies safety concerns that require corrective action, the RTA must respond within 30 days with either completed corrective actions, or a corrective action plan (CAP) with a timeline for its implementation and the RTA personnel responsible for its completion. RTSB inspectors monitor responses and field-verify the corrective actions. The inspection report file is considered closed when RTSB sends a follow-up report to the RTA accepting the CAP(s). RTSB inspectors track CAP(s) to closure.

Table 2 below summarizes the inspection activities conducted by RTSB inspectors. Inspection activities decreased from the previous year by 9.0% for FTA funded RTAs, and 4.8% for non-FTA funded RTAs, for a grand total of 8.6% decrease for all RTAs. The FTA funded RTAs are larger operations

(larger systems, operating more trains, at longer distances, and transporting more passengers) than the non-FTA funded RTAs, as a result CPUC focuses majority of its activities on the FTA funded RTAs.

	Agency	Total Inspections January 1,2022 to December 31, 2022	Total Inspections January 1, 2023 to December 31, 2023
FTA FUNDED	Sacramento Regional Transit District	99	128
	Bay Area Rapid Transit (BART)	84	90
	San Francisco Municipal Transportation Agency	65	44
	Santa Clara Valley Transportation Authority	90	84
	Los Angeles Metropolitan Transportation Authority	138	100
	North [San Diego] County Transit District (Sprinter)	34	30
	San Diego Trolley, Inc.	54	42
	OCTA	4	3
	FTA Funded Sub Total	**568**	**521**
NON-FTA FUNDED	Angels Flight Railway Company	18	15
	Sacramento International Airport APM	10	12
	Getty Center Museum APM	10	8
	San Francisco International Airport (AirTrain) APM	4	5
	Americana at Brand/The Grove Trolley	23	21
	LAX APM	0	1
	Non-FTA Funded Sub Total	**65**	**62**
	Grand Total	**633**	**583**

Table 2: Total RTSB Inspections by Agency for Calendar Years 2022 and 2023

Accident Investigations

As prescribed in the RTSB's Program Standard, causal factors are identified through accident investigations and documented in the RSSIMS database.

RTAs are required to report accidents[2] and incidents[3] to CPUC. GO 164-E requires RTAs to investigate, and CPUC staff to review and approve the RTA's accident investigation reports. In some cases, CPUC staff conducts a separate investigation of certain accidents. CPUC staff tracks accident investigation closeouts by RTAs and any CAP(s) associated with the accidents. In some cases, the CPUC staff may conduct additional on-site accident follow up investigations to obtain more detailed information. The workload associated with this element is highly variable due to the number and complexity of the investigations, as well as other factors. In CY 2023 RTAs reported 320 accidents.

LACMTA GRADE CROSSING ACCIDENT

[2] Commission GO 164-E, 2.1: *Accident* means an event that involves any of the following: a loss of life; a report of a serious injury to a person; a collision involving a rail transit vehicle; a runaway train; an evacuation for life safety reasons; or any derailment of a rail transit vehicle, at any location, at any time, whatever the cause.

[3] Commission GO 164-E, 2.13: *Incident* means an event that involves any of the following: a personal injury that is not a serious injury; one or more injuries requiring medical transport; or damage to facilities, equipment, rolling stock or infrastructure that disrupts the operations of a rail transit agency.

Accident Types	LACMTA	MUNI	NCTD	SRTD	SDTI	BART	VTA	Total	Percent of Total
Train vs Vehicle	39	58	0	22	11	1	19	150	46.9%
Other/ Train vs Train/ Yard Collision	26	12	4	15	0	8	9	74	23.1%
Train vs Person /Train vs Bicycle /Other Conveyance (with rider)	13	8	1	6	12	8	9	57	17.8%
Mainline Derailment/Yard Derailment	0	5	0	3	1	13	0	22	6.9%
Evacuation/ Fire/Smoke	2	0	1	1	0	7	6	17	5.3%
Grand Total	80	83	6	47	24	37	43	320	100%

Table 3: Types of Accidents Reported by All Rail Transit Agencies in Calendar Year 2023

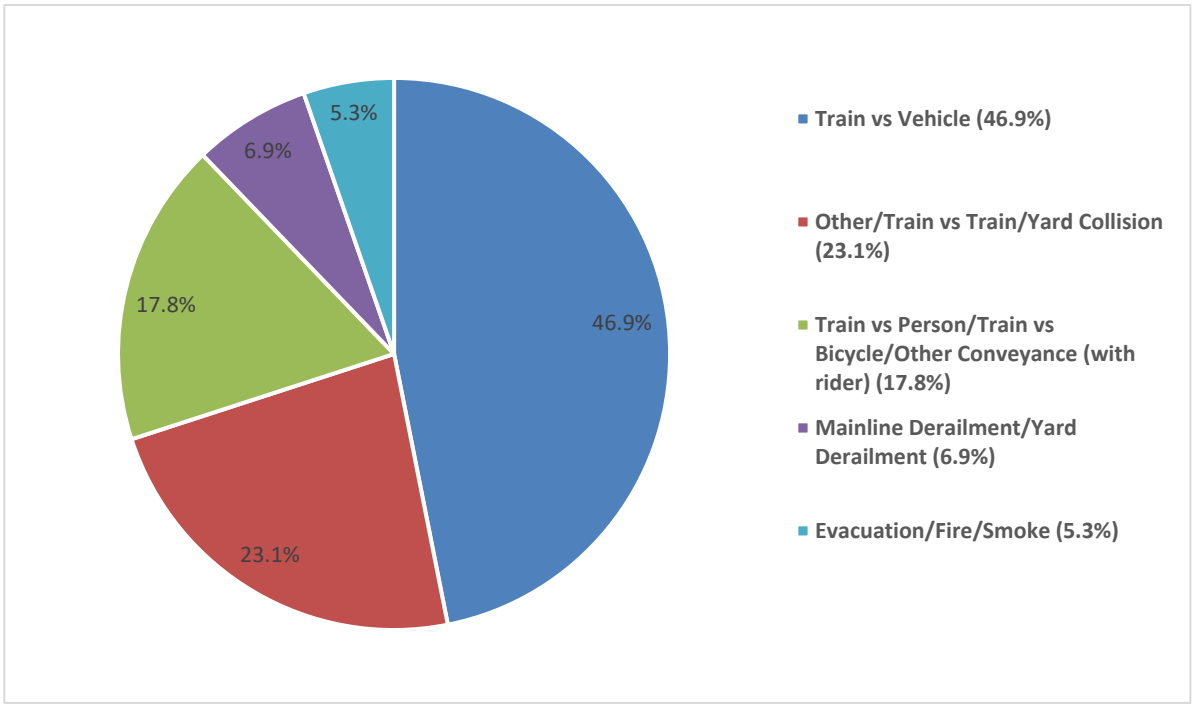


Figure 2: Types of Accidents Reported by All Rail Transit Agencies in Calendar Year 2023

NOTE: The category "Other" is comprised of all accidents not included in the other categories. These include accidents resulting in substantial damage, evacuations, or a collision with an object such as signs/poles, crossing gates, ADA ramps, signal cabinet door, etc.

Accident Primary Causal Factors	2022		2023		Difference between 2022 and 2023
Primary Causal Factors	Total Accidents	Percentage of Accidents	Total Accidents	Percentage of Accidents	
Under Investigation	126	34.3%	107	33.4%	-15.1%
Action of Motorist, Non-transit auto driver at fault	86	23.4%	80	25%	-7%
Operating Rule Violation/ Human Factor, Employee error or organizational issue	47	12.8%	39	12.2%	-17%
Imprudent Customer Actions, Inappropriate patron or passenger behavior on vehicles or in stations	33	9%	27	8.4%	-18.2%
Pedestrian Actions, Pedestrian at fault	12	3.3%	20	6.3%	66.7%
Trespasser, Trespasser action	16	4.4%	17	5.3%	6.3%
Equipment Failure, System component failure	9	2.5%	13	4.1%	44.4%
Other, Acts of Nature/ Unknown	18	4.9%	6	1.9%	-66.7%
Suicide, Suicides and suicide attempts	14	3.8%	6	1.9%	-57.1%
Poor Maintenance, System not properly maintained	5	1.4%	3	0.9%	-40%
Evacuation (new Category in 2023)	NA	NA	2	0.6%	NA

Table 4: Primary Causal Factors Identified through Accident Investigation for Calendar Years 2022 and 2023

	2022		2023		
Primary Causal Factors	Total Accidents	Percentage of Accidents	Total Accidents	Percentage of Accidents	**Difference between 2022 and 2023**
Medically Related, Illness, heart-attacks	1	0.3%	0	0%	-100%
Grand Total	367	100.00%	320	100%	-12.8%

Table 4: Continued - Primary Causal Factors Identified through Accident Investigation for Calendar Years 2022 and 2023

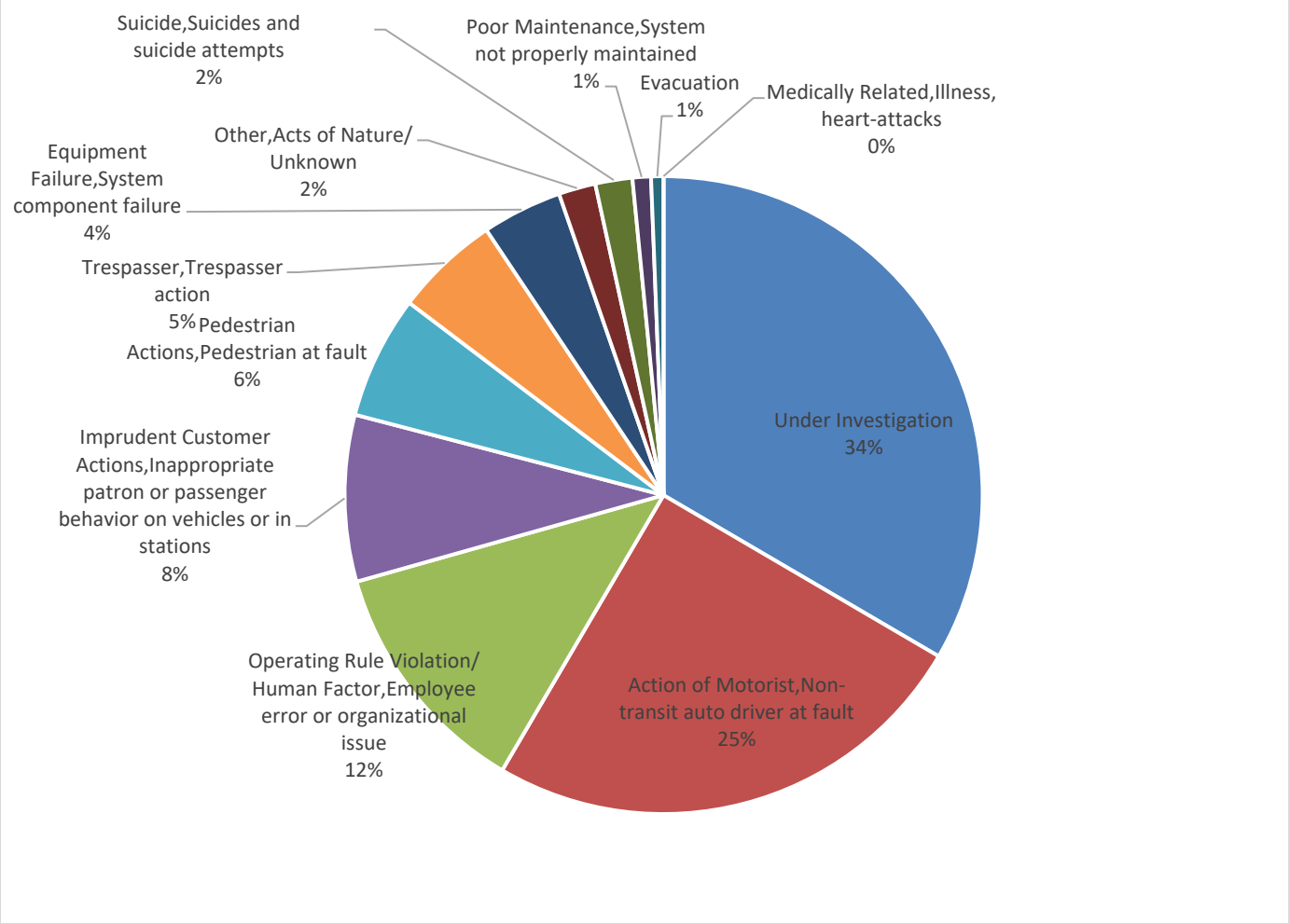


Figure 3: Primary Causal Factors Identified through Accident Investigation in Calendar Year 2023

National Transportation Safety Board (NTSB) Accident Investigations of California RTAs

The NTSB is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and any significant accidents in other modes of transportation – rail, highway, marine and pipeline. The NTSB determines the probable cause of accidents and issues safety recommendations aimed at preventing future recurrences.

When a rail transit accident occurs, the NTSB may initiate an accident investigation depending upon the severity of the accident. In such a case, the NTSB is responsible for leading the investigation, including the determination of facts, conditions, and circumstances, the cause or probable causes, and recommendations to reduce the likelihood of recurrence. CPUC staff will work with the NTSB and participate along with the involved RTAs in the accident investigation. The NTSB will typically address any accident findings through recommendations.

NTSB Report RIR-22/07, Safety Recommendation R-22-3

On August 22, 2019, a Sacramento Regional Transit District (SRTD) train carrying passengers collided with another SRTD train on the same track, with no passengers onboard, while testing a mechanical problem. The NTSB launched an investigation and published their accident investigation report on April 14, 2022. Subsequently on May 19, 2022, the NTSB issued a letter to the CPUC urging the Commission to respond within 90 days, detailing the actions the CPUC has taken or intends to take to implement the recommendation R-22-3 in the report. R-22-3 recommended that CPUC require SRTD to conduct a rigorous hazard analysis on the practice of testing or trouble-shooting trains on mainline track during revenue hours, before allowing these activities. On August 16, 2022, the CPUC submitted a response letter to the NTSB signed by Commission President Alice Reynolds describing actions the CPUC had already taken actions addressing NTSB's recommendation.

Since the CPUC had already taken the recommended action, on May 23, 2023, the NTSB issued a letter to the Commission classifying the Recommendation R-22-3 as "Closed-Acceptable Action."

NTSB Report RIR-23/02

On September 13, 2021, a Bay Area Rapid Transit (BART) train berthed at the Powell Station platform where a train door closed on a dog leash with the dog inside the train and patron outside the train. The leash was tied to the patron's backpack, who was subsequently dragged along the platform as the train departed the station resulting in a fatality. The NTSB investigated this accident. The CPUC, BART, FTA, the Amalgamated Transit Union (the union representing BART employees), and BART Police participated in the investigation.

NTSB issued report RIR 23/02 on March 13, 2023. NTSB made no recommendations to BART or CPUC in its report. CPUC staff are also working on the accident investigation and potential mitigations so that BART can complete a report acceptable to CPUC.

Corrective Action Plans

As described previously, CAPs are developed by RTAs and tracked by CPUC staff. CPUC and FTA rules require RTAs to develop CAPs for addressing the findings of investigations of events; hazard management program; triennial audits conducted by CPUC; internal safety/security reviews conducted by the RTAs; and other purposes. CAPs describe the proposed corrective actions and the responsible RTA personnel who will implement and track the CAP to closure. CPUC staff review the proposed CAPs to determine their adequacy in addressing the issue, and either approve or require modifications to the CAP. CPUC staff hold routine meetings with RTA personnel to assess CAP status and update CPUC records. In CY 2023, CPUC staff reviewed 558 CAPs, as shown in Table 5 below.

	CAPs Generated in CY 2022			CAPs Generated in CY 2023		
FTA Category		**CAP Status**			**CAP Status**	
	Number	**Open**	**Closed**	**Number**	**Open**	**Closed**
Bay Area Rapid Transit						
Accident Investigation	24	14	10	62	26	36
Hazard Management	0	0	0	0	0	0
Inspection	117	72	45	29	10	19
Internal Safety Audit Program	9	0	9	0	0	0
Triennial Audit	0	0	0	0	0	0
Other	0	0	0	7	0	7
Sub Total	150	86	64	98	36	62
San Francisco Municipal Transportation Agency						
Accident Investigation	85	18	67	47	4	43
Hazard Management	0	0	0	0	0	0
Inspection	45	17	28	16	12	4
Internal Safety Audit Program	0	0	0	0	0	0
Triennial Audit	0	0	0	2	0	2
Other	0	0	0	0	0	0
Sub Total	130	35	95	65	16	49

Table 5: Status of Corrective Action Plans by FTA Source Category for Calendar Years 2022 and 2023

	CAPs Generated in CY 2022			CAPs Generated in CY 2023		
FTA Category		**CAP Status**			**CAP Status**	
	Number	**Open**	**Closed**	**Number**	**Open**	**Closed**
Santa Clara Valley Transportation Authority						
Accident Investigation	10	1	9	7	3	4
Hazard Management	1	0	1	3	3	0
Inspection	85	45	40	35	17	18
Internal Safety Audit Program	0	0	0	52	39	13
Triennial Audit	0	0	0	0	0	0
Other	0	0	0	0	0	0
Sub Total	96	46	50	97	62	35
Los Angeles County Metropolitan Transportation Authority						
Accident Investigation	6	1	5	25	8	17
Hazard Management	0	0	0	0	0	0
Inspection	69	8	61	77	39	38
Internal Safety Audit Program	0	0	0	16	5	11
Triennial Audit	0	0	0	0	0	0
Other	1	0	1	1	0	1
Sub Total	76	9	67	119	52	67
North [San Diego] County Transit District						
Accident Investigation	6	0	6	14	6	8
Hazard Management	0	0	0	0	0	0
Inspection	10	1	9	26	14	12
Internal Safety Audit Program	0	0	0	0	0	0
Triennial Audit	0	0	0	0	0	0
Other	0	0	0	1	0	1
Sub Total	16	1	15	41	20	21
San Diego Trolley, Inc						
Accident Investigation	1	0	1	5	0	5
Hazard Management	0	0	0	0	0	0
Inspection	27	1	26	43	21	22
Internal Safety Audit Program	0	0	0	0	0	0
Triennial Audit	0	0	0	0	0	0
Other	0	0	0	0	0	0
Sub Total	28	1	27	48	21	27

Table 5: Continued - Status of Corrective Action Plans by FTA Source Category for Calendar Years 2022 and 2023

	CAPs Generated in CY 2022			CAPs Generated in CY 2023		
FTA Category		**CAP Status**			**CAP Status**	
	Number	**Open**	**Closed**	**Number**	**Open**	**Closed**
Sacramento Regional Transit District						
Accident Investigation	1	0	1	5	4	1
Hazard Management	0	0	0	0	0	0
Inspection	116	61	55	43	29	14
Internal Safety Audit Program	1	1	0	7	5	2
Triennial Audit	0	0	0	0	0	0
Other	0	0	0	0	0	0
Sub Total	118	62	56	55	38	17
San Francisco International Airport Automatic People Mover (AirTrain)						
Accident Investigation	0	0	0	0	0	0
Hazard Management	0	0	0	0	0	0
Inspection	4	1	3	0	0	0
Internal Safety Audit Program	0	0	0	0	0	0
Triennial Audit	0	0	0	0	0	0
Other	0	0	0	0	0	0
Sub Total	4	1	3	0	0	0
Getty Center Museum Automated People Mover						
Accident Investigation	0	0	0	0	0	0
Hazard Management	0	0	0	0	0	0
Inspection	3	0	3	5	3	2
Internal Safety Audit Program	3	0	3	0	0	0
Triennial Audit	0	0	0	0	0	0
Other	2	0	2	0	0	0
Sub Total	8	0	8	5	3	2
Sacramento County Department of Airports						
Accident Investigation	0	0	0	0	0	0
Hazard Management	0	0	0	0	0	0
Inspection	6	4	2	2	0	2
Internal Safety Audit Program	0	0	0	0	0	0
Triennial Audit	0	0	0	0	0	0
Other	4	1	3	0	0	0
Sub Total	10	5	5	2	0	2

Table 5: Continued - Status of Corrective Action Plans by FTA Source Category for Calendar Years 2022 and 2023

	CAPs Generated in CY 2022			CAPs Generated in CY 2023		
FTA Category		**CAP Status**			**CAP Status**	
	Number	**Open**	**Closed**	**Number**	**Open**	**Closed**
Angels Flight Railway Company						
Accident Investigation	0	0	0	0	0	0
Hazard Management	0	0	0	0	0	0
Inspection	8	2	6	15	8	7
Internal Safety Audit Program	0	0	0	0	0	0
Triennial Audit	0	0	0	0	0	0
Other	0	0	0	1	0	1
Sub Total	8	2	6	16	8	8
Americana At Brand Trolley						
Accident Investigation	7	0	7	0	0	0
Hazard Management	0	0	0	0	0	0
Inspection	7	0	7	2	1	1
Internal Safety Audit Program	0	0	0	0	0	0
Triennial Audit	0	0	0	0	0	0
Other	0	0	0	0	0	0
Sub Total	14	0	14	2	1	1
Grove Trolley						
Accident Investigation	0	0	0	0	0	0
Hazard Management	0	0	0	0	0	0
Inspection	4	0	4	10	5	5
Internal Safety Audit Program	0	0	0	0	0	0
Triennial Audit	0	0	0	0	0	0
Other	0	0	0	0	0	0
Sub Total	4	0	4	10	5	5
Los Angeles World Airports Automated People Mover						
Accident Investigation	0	0	0	0	0	0
Hazard Management	0	0	0	0	0	0
Inspection	0	0	0	0	0	0
Internal Safety Audit Program	0	0	0	0	0	0
Triennial Audit	0	0	0	0	0	0
Other	0	0	0	0	0	0
Sub Total	0	0	0	0	0	0
Grand Total	**662**	**248**	**414**	**558**	**262**	**296**

Table 5: Continued - Status of Corrective Action Plans by FTA Source Category for Calendar Years 2022 and 2023

Changes to the RTA Public Transportation Agency Safety Plans

On July 29, 2018, FTA issued 49 CFR Part 673, which requires RTAs under FTA jurisdiction to develop Public Transportation Agency Safety Plans (PTASPs), based on the principles of Safety Management Systems and comply with the following minimum requirements:

- An approval by the RTA board of directors, or an equivalent entity, and a signature from the RTA's Accountable Executive.
- Documented processes and procedures for a Safety Management System, which would include a Safety Management Policy, a process for Safety Risk Management, a process for Safety Assurance and Safety Promotion.
- Performance targets based on the safety performance measures set out in the National Public Transportation Safety Plan.
- Compliance with the National Public Transportation Safety Plan and FTA's Public Transportation Safety Program.
- A process and timeline for conducting an annual review and update of the plan.
- Emergency preparedness and response plan or procedures that addresses, at a minimum, the assignment of employee responsibilities during an emergency, and coordination with federal, state, regional, and local officials with roles and responsibilities for emergency preparedness and response in the RTA's service area.

On February 17, 2022, FTA issued a "Dear Colleague Letter" informing the transit industry about the Bipartisan Infrastructure Law changes to the PTASP requirements at 49 U.S.C. § 5329(d) and establishes compliance deadlines for implementing these new provisions.

CPUC staff has revised the CPUC PTASP compliance checklist and reviewing the RTA's PTASP to ensure compliance with the new Bipartisan Infrastructure Law.

ENFORCEMENT ACTIONS

The CPUC has two primary methods for enforcement actions. One is to open a formal proceeding before the Commission referred to as an Order Instituting Investigation (OII) and the second process allows CPUC staff to issue a citation.

If the Commission issues an OII, a formal proceeding is initiated where an Administrative Law Judge is assigned to preside over hearings and may prepare a draft Decision for Commission consideration.

The Commission issued Resolution ST-163 (12/22/2014), which approved a citation program under the administration of the CPUC's Director of the Safety and Enforcement Division (SED) for enforcing compliance with certain GOs, Codes of Federal Regulations (CFRs), and other requirements for RTAs operating in California. RTSB and two other CPUC branches involved in rail safety were formerly part of SED. In 2019 CPUC formed RSD by separating the 3 rail safety branches from SED. Therefore, the authority delegated to the SED Director in Resolution ST-163, now is delegated to the RSD Director.

RSD has delegated authority to draft and issue citations for specific violations and levy penalties in specified amounts as set forth in the Resolution. RSD works with CPUC's Legal Division to generate and issue citations. The Rail Transit Citation Program includes an appeal process.

No new OII formal proceedings and no citations under Resolution ST-163 were initiated by RTSB during calendar year 2023.

SUMMARY OF ACTIVITIES FOR ALL FTA REGULATED RAIL TRANSIT AGENCIES IN CALENDAR YEAR 2023

BAY AREA RAPID TRANSIT DISTRICT

BART is primarily a rapid transit public transportation system serving the San Francisco Bay Area, that began revenue operations on September 11, 1972. BART is operated by the Bay Area Rapid Transit District, formed in 1957. The initial system opened in stages from 1972 to 1974. The heavy rapid rail, electrically powered, elevated and subway system connects San Francisco and Oakland with urban and suburban areas in Alameda, Contra Costa, San Mateo and Santa Clara counties. BART serves 50 stations along seven routes on 131 miles of rapid transit lines, including a 10-mile spur line in eastern Contra Costa County which utilizes diesel powered trains and a 3.2-mile automated guideway transit line from its mainline to the Oakland International Airport.

The BART Board is comprised of nine elected officials from the 9 BART Districts who serve 4-year terms.

BART Rail System Description

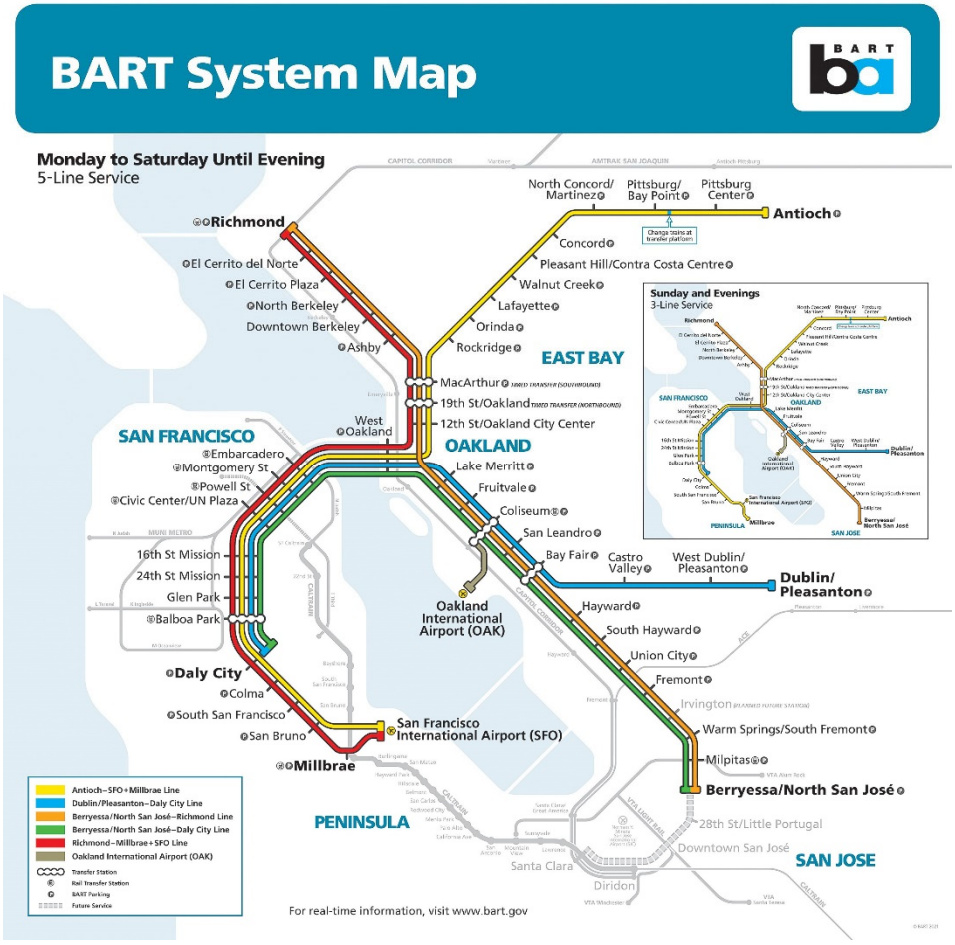
The current BART system operates on the following seven lines:

- Berryessa/North San José - Daly City Line
- Dublin/Pleasanton—Daly City Line
- Richmond—San Francisco Airport Line
- Pittsburg/Bay Point— San Francisco Airport Line
- Richmond—Berryessa/ North San José Line
- Pittsburg/Bay Point – Antioch Line (East Contra Costa County BART extension)
- Coliseum – Oakland International Airport Line (Oakland Airport Connector)

The initial segment was 28 miles of track in Alameda County, servicing Oakland to Fremont. The second segment opened on January 29, 1973, with 12 miles of track extending to Richmond. A 17-mile segment opened on May 21, 1973, offering service from Oakland to Concord. On November 5, 1973, a new, temporarily disconnected 7.5-mile segment opened between Montgomery Street in Downtown San Francisco and Daly City. The Transbay Tube opened on September 16, 1974, fully connecting the

71.5 miles of track of the original BART system. Embarcadero Station opened on May 27, 1976, bringing the total station count to 34.

An extension to the Concord line, continuing to the North Concord/Martinez Station, opened on December 16, 1995, adding 2.25 miles of track to the BART system. The Colma Station opened for revenue service on February 24, 1996, adding 1.6 miles of track south of the Daly City Yard. The Pittsburg/Bay Point Station opened on December 7, 1996, completing the 7.8-mile extension from Concord station which included the North Concord/Martinez Station. The Dublin/Pleasanton extension opened on May 10, 1997, adding 14 miles of track and two stations to the system. The San Francisco Airport extension opened on June 22, 2003, adding four stations and 8.7 miles of track. The Warm Springs/South Fremont extension opened on March 25, 2017, adding one station and 5.4 miles of track. Finally, Berryessa/North San José extension began service on June 13, 2020.



BART SYSTEM MAP

East Contra Costa BART Extension (e-BART)

The East Contra Costa BART Extension Project opened in 2018 and provides passenger service along 10 miles of the California State Route 4 corridor connecting east of the Pittsburg/Bay Point Station. The extension uses Diesel Multiple Unit (DMU) vehicles instead of BART's standard electrically driven trains and includes two new stations and a transfer platform to provide timed transfers between DMU vehicles and traditional BART trains. The SCP for this extension was approved by the Commission in Resolution ST-139 (3/23/2012).

BART's Oakland Airport Connector

The Oakland Airport Connector (OAC) is an APM system designed to integrate with BART at the Coliseum Station, to convey passengers to and from the Oakland International Airport. OAC began revenue operation on November 22, 2014. The system was designed and constructed by Flatiron Construction and Parson Transportation along with Doppelmayer Cable Car (DCC) that designed, manufactured, and supplied the APM system and guideway. DCC now operates and maintains the system as part of a 20-year BART operations and maintenance contract. The pinched-loop cable-driven system is 3.2 miles in length, including two passenger stations and a vehicle maintenance facility which houses the traction motors. CPUC staff monitored the engineering design and construction phases of this project through the safety certification process approved by the Commission in Resolution ST- 64 (10/2/2003). BART established the OAC as a separate system because of its significant difference from traditional BART service.

The OAC system has not experienced any accidents or significant operational concerns since it began operations. The OAC underwent its first triennial review in October 2016, and its second in October of 2019.

BART Accident Summary

Accident Type	BART
Mainline Derailment/Yard Derailment (35.1%)	13
Other/Train vs Train/Yard Collision (21.6%)	8
Train vs Person/Train vs Bicycle/Other Conveyance (with rider) (21.6%)	8
Evacuation/Fire/Smoke (18.9%)	7
Train vs Vehicle (2.7%)	1
Grand Total	**37**

Table 6: BART Accidents Primary Causal Factors - Calendar Year 2023

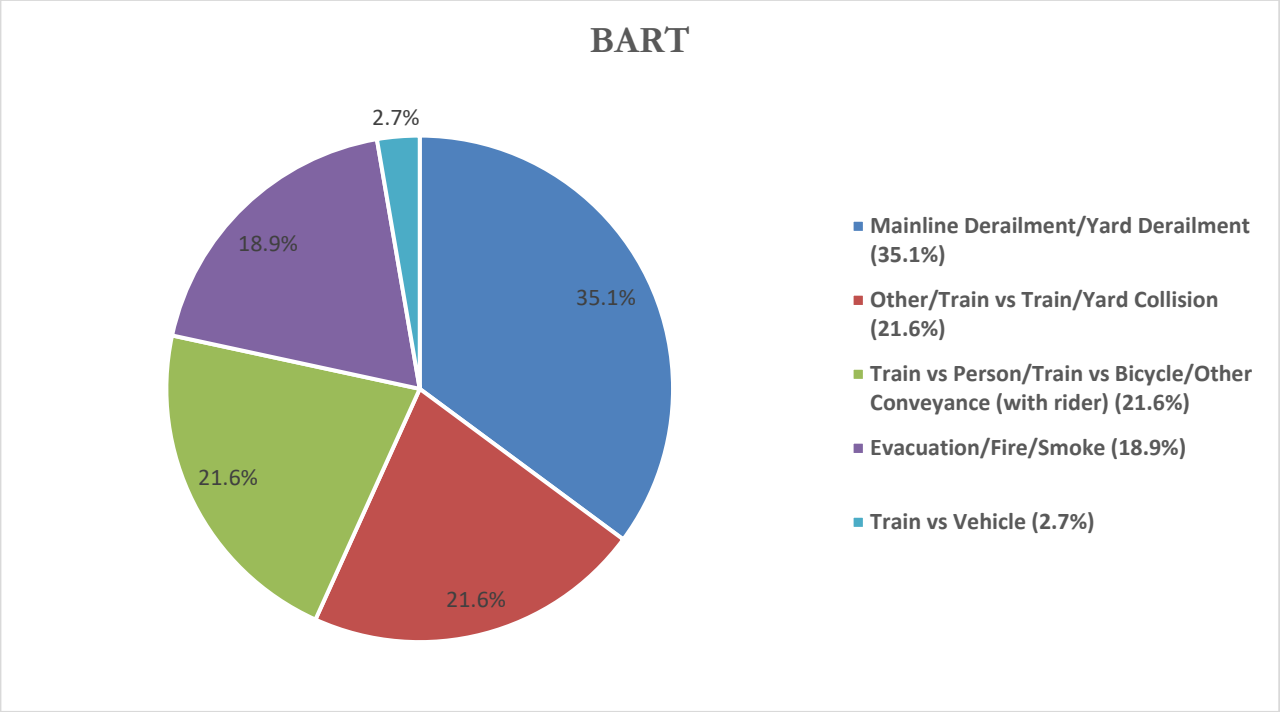


Figure 4: BART Accidents Primary Causal Factors - Calendar Year 2023

NOTE: The category "Other" is comprised of all accidents not included in the other categories. These include accidents resulting in substantial damage or evacuations, and a collision with an object such as signs/poles, crossing gates, signal cabinet door, motor vehicles, shopping carts, etc. left on or next to the tracks.

Impacts from Weather Events

BART has been heavily impacted from the 2023 winter storms. Service impacts have included train slow-downs, and the high winds have blown over trees and various debris onto the trackway causing several trains versus object collisions, and one derailment due to a fallen tree on the trackway. A

maximum wind gust was measured at 77 mph at the San Francisco International Airport, during a storm in March of 2023.

Summer heat has also caused slowdowns at BART, but no major service impacts nor incidents were recorded in 2023.

Bipartisan Infrastructure Legislation

As of December 2022, BART has formed the Safety Management System (SMS) Joint Union Management Safety Committee, meeting the requirement of the Bipartisan Infrastructure Law on the Public Transportation Agency Safety Plan. This committee will identify risk-based corrective measures needed to eliminate or control recognized safety and health hazards to transit operations and workforce, annually review and approve BART's Public Transportation Agency Safety Plan, and other work that the committee might decide.

Silicon Valley Berryessa Extension/Silicon Valley Rapid Transit Project

The Santa Clara Valley Transportation Authority (VTA) and BART are constructing a 16.3-mile extension that will extend the BART system into Santa Clara County and to the City of San Jose. The extension was planned and developed jointly by BART and VTA. VTA and its contractors are constructing the extension in accordance with BART standards and BART will operate the rail system when completed. The planned revenue service date is now projected in 2036. The line will extend from the planned Warm Springs Station to Milpitas alongside Union Pacific Railroad Company tracks, continuing to 28th Street and Santa Clara Street in San Jose, then proceeding underground through downtown San Jose to the Diridon Caltrain Station and finally terminating at the Santa Clara Station. This project has been divided into 2 phases:

- Silicon Valley Berryessa Extension (SVBX) – 10 miles in length which is currently in operation and was approved for rail service on June 13, 2020. This segment is currently operating.
- Santa Clara Valley Extension - 6.3 miles in length which is environmentally cleared and under final design, slated for completion by 2036.

The CPUC approved BART's Safety Certification Plan (SCP) with Resolution ST-83 (2/15/2007), and CPUC staff have been monitoring and inspecting the engineering, design, and construction phases of this project through the safety certification process.

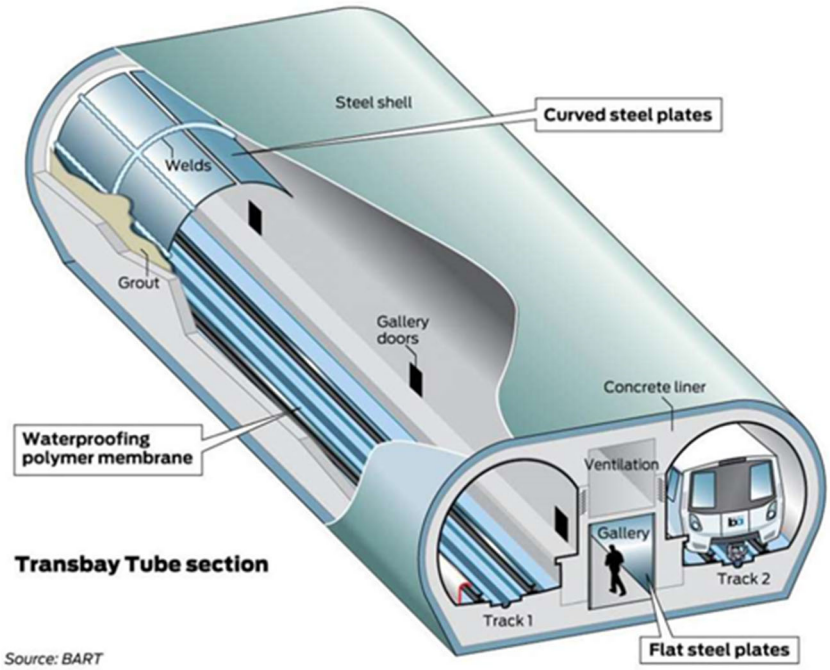
New Vehicle Procurement Project – Fleet of the Future

BART's new vehicle procurement project currently underway will replace the existing fleet of 669 legacy cars with 775 Fleet of the Future (FOTF) new cars. BART has since purchased an additional 225 cars for the FOTF project. The manufacturer has been delivering new cars since 2018. CPUC staff have been reviewing test records prior to approval for each car during the procurement project through the safety certification process. As of December 31, 2023, CPUC staff have approved 681 new cars. BART is safety certifying the cars in accordance with the SCP, approved by the Commission in Resolution ST-150 (3/22/2013).

BART Communications Based Train Control Upgrade

BART is upgrading its entire mainline with a Communications-Based Train Control (CBTC) system. The CBTC technology utilizes a two-way digital radio frequency communication between intelligent trains, and a network of distributed track-side zone controllers. The primary characteristics of a CBTC system include high resolution train location determination by car borne equipment and independent of track circuits. The new CBTC system will provide shorter headways (amount of time between train arrivals at a station), lower maintenance costs, greater operational flexibility, enhanced safety (due to reduced maintenance and more precise tracking of trains and maintenance vehicles), smoother and more predictable operation, and improved reliability and availability. BART awarded the contract to Hitachi to design and build the project, with Notice to Proceed executed in November 2020. The SCP was approved by the Commission in Resolution ST-206 (10/30/2017). The Project is entering final design phase for deploying CBTC Automatic Train Supervision (ATS) over the entire network, which is the initial stage of the many phases project.

BART Transbay Tube Seismic Retrofit Project



This project is a part of the Earthquake Safety Program approved by the Commission in Resolution ST-81 (10/27/2005). The program is to retrofit the 1976 Transbay Tube. In 2005, the project began to retrofit elements including aerial structures, underground structures, and stations that may be vulnerable to a major earthquake. All elements have been completed with the exception of the 3.6-mile-long Transbay Tube connecting the cities of Oakland and San Francisco that started the retrofitting construction in 2019. The Transbay Tube retrofit project will upgrade and strengthen the infrastructure by reinforcing the tube itself. The project was completed in 2023 with an estimated cost of $267 million.

Hayward Maintenance Complex (HMC)

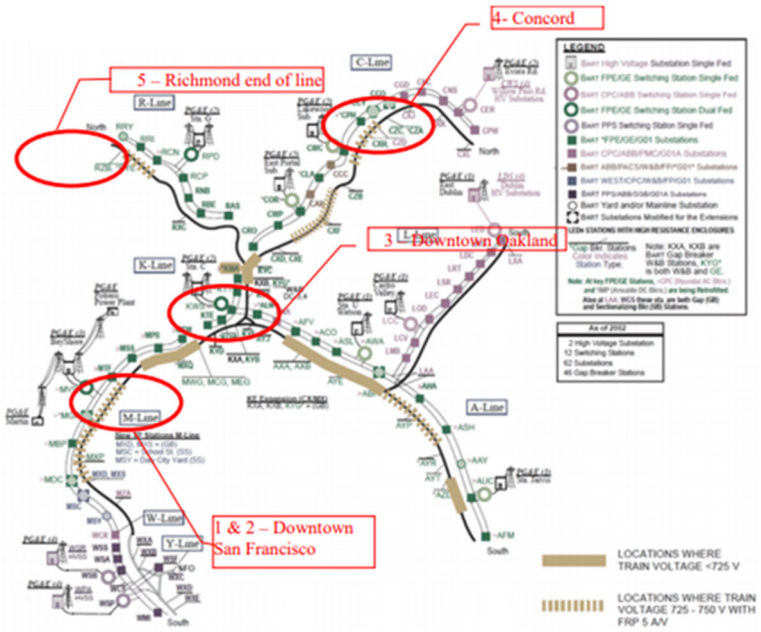
BART's new project to expand and improve its Hayward maintenance and storage yard, approved by Commission Resolution ST-218 (4/16/2019), is partially complete. BART's Hayward Yard is one of four BART maintenance facilities serving the BART system. Over the next 30 years BART will acquire additional vehicles to meet future demand associated with the regional population growth, system expansion of the Warm Springs and Silicon Valley/San Jose Extension projects, additional riders from the Oakland Airport Connector, and the e-BART projects. Accordingly, BART requires expanded maintenance and storage facilities to serve the expanded fleet. The project will add storage tracks for up to 250 rail cars, expand maintenance facilities, construct a flyover bridge structure to move cars south out of the complex, and an equipment/personnel overcrossing to allow movements between the existing complex and a new storage yard.

On July 8, 2022, BART submitted the Safety Certification Verification Report (SCVR) to conclude the HMC Phase I project. The SCVR was approved on October 6, 2022, by CPUC staff after review of project documentation, field inspection, and satisfactory resolution to safety findings.

HMC Phase II is currently undergoing preliminary design and engineering.

BART Traction Power System Improvements Project:

To support the traction power system due to BART's capacity expansion, five sites have been identified for installation of new traction power substations. The project is split into the West Bay and East Bay sites. The two West Bay sites are Civic Center Station and Montgomery Street Station, and construction is ongoing. The three East Bay sites are in the cities of Oakland, Concord, and Richmond, with completion dates to be determined. An SCP was approved via Commission Resolution ST-239 (July 20, 2020). East Bay sites completed the engineering design phase and construction bids are expected by Fall of 2024.



BART Traction Power System Improvement Project

BART Irvington Station Project:

The Irvington Station Project includes construction of a new station halfway between the existing Fremont and Warm Springs / South Fremont stations. The estimated completion year is 2029. The project is in the engineering design phase. The SCP was approved by Commission Resolution ST-240 (November 5, 2020).

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

The Los Angeles County Metropolitan Transportation Authority (LACMTA) is the transportation agency for Los Angeles County. LACMTA is governed by a 13-member Board of Directors comprised of five Los Angeles County Supervisors, the Mayor of the City of Los Angeles, three Los Angeles mayor-appointed members, four city council members representing the other 87 cities in Los Angeles County, and one non-voting member appointed by the Governor of California. The Twenty-Eight by '28 initiative set forth by the City of Los Angeles Mayor and the LACMTA Board of Directors proposes for the completion of 28 LACMTA transportation infrastructure projects before the start of the 2028 Summer Olympic and Paralympic Games, many of which are rail transit projects.

LACMTA Rail System Description

The LACMTA rail system consists of A, B, C, D, E, and K Lines. The Regional Connector project opened to the public on June 16, 2023, and led to major route/line changes by connecting the L line to the A Line and the E Line.

The completion of the project added 3 new stations, improved other downtown Los Angeles stations, and allowed for much improved connections across Los Angeles County.

The former L line (rail segment between downtown Los Angeles to Azusa) is now operated as part of the A Line. The former L Line (rail segment between downtown Los Angeles to East Los Angeles) is now operated as part of the E Line. The K Line (Crenshaw/LAX Line) opened for revenue service in October 2022. LACMTA operates over 109 miles with 108 stations.

LACMTA Rail System Map

A Line (Formerly known as Blue Line)

Due to the completion of the Regional Connector Project in 2023, the A Line now includes a segment of the former L Line (between downtown Los Angeles to Azusa). The A line is now a light rail line that runs from Long Beach to Pasadena and Azusa through downtown Los Angeles and serves 44 stations over a 48.5-mile route. The A Line connects to the C Line at Rosa Parks/Willowbrook Station in Compton and to the B/D Lines at the 7th/Metro Station in downtown Los Angeles. The Foothill Extension Project Phase 2B currently under construction will further extend the A line from the City of Azusa to City of Pomona.

The portion of the current A Line that runs from downtown Los Angeles to Long Beach is part of the original Blue Line and is the oldest segment of rail transit on the LACMTA system. This portion of track underwent an extensive rehabilitation during 2019, including track replacement and additions, signal and rail crossing warning device upgrades, and yard train control modernization. The upgraded yard train control system was put into service on March 24, 2023.

B Line (Formerly known as Red Line)

The B Line is a heavy rail subway line that has been operating since 1990. LACMTA operates four-car and six-car trains on this 17.4-mile route between the Los Angeles Union Station and North Hollywood with 16 stations. The B Line connects to the A Line and the E Line at the 7th/Metro Station and connects to Amtrak, Metrolink commuter rail, and the A Line again at the Los Angeles Union Station.

C Line (Formerly known as Green Line)

The C Line is a light rail line that runs east-west along the median of the Glenn Anderson (a.k.a. Century) Freeway (Interstate 105) through Los Angeles County between the City of Norwalk and the City of Redondo Beach. LACMTA operates a two-car configuration on the line with the exception of one-car trains during low service use period. The C Line has been operating since 1995 and has 14 stations over its 20-mile route. It connects to the A Line at the Imperial/Wilmington (Rosa Parks) Station in the City of Compton.

D Line (Formerly known as Purple Line)

The D Line is a heavy rail subway line that runs between Los Angeles Union Station and the Koreatown area of the City of Los Angeles and diverges from the B Line at the Vermont-Wilshire Station with two additional stations. The D Line construction expansion will eventually provide the connection to the three phases of the D Line capital project extensions currently in construction.

L Line (Formerly known as Gold Line)

The former Gold Line, operating since July 2003 from Los Angeles Union Station to the City of Pasadena Sierra Madre Villa Station, is now operated as part of the A Line and the E Line due to the completion of the Regional Connector Project in 2023 which created direct track connections amongst the existing A, E, and L Lines.

E Line (Formerly known as Mid-City Expo Line)

The Mid-City Expo Line Phase I project opened in April 2012, and operates as an 8.5-mile double track light rail system with 12 stations between downtown Los Angeles to Culver City. This initial portion of the E Line serves the University of Southern California, Exposition Park, the Mid-City communities, the Crenshaw District, and Culver City.

The Expo Line Phase II project opened in May 2016. This portion of the line is a 6.6-mile double track extension of the Expo Mid-City Expo Phase I Line. The existing 8.5-mile system from downtown Los Angeles to Culver City was extended westbound to the City of Santa Monica. This project added 7 new stations and travels along the old Pacific Electric Exposition right-of-way to 4th Street and Colorado Ave in downtown Santa Monica.

Due to the completion of the Regional Connector Project in 2023, the E Line now includes the former L Line (downtown Los Angeles to East Los Angeles Portion) as part of the E Line. The current E Line includes Phase I and Phase II of the Expo Project along with the Eastside Extension Project of the former L Line. The E Line currently runs from downtown Santa Monica Station to the East Los Angeles Atlantic Station and serves a total of 29 Stations over 22 miles. The E Line and A Line share 5 stations in the Los Angeles downtown region.

K Line (Also known as Crenshaw/LAX Line)

The K Line is a light rail line that will travel 8.5-miles from the existing E Line at Expo/Crenshaw Station, the northern terminus, to the existing C Line at Aviation/LAX Station, the southern terminus. On October 7, 2022, the K Line partially opened with Westchester/Veterans Station as its temporary southern terminus, because the remaining southern segment of the K Line is closed due to the construction of the Airport Metro Connector (AMC) Station, which will later be known as the LAX/Metro Transit Center. When construction is complete, the K line will share a station with the future LAX Automated People Mover at the LAX/Metro Transit Center and have a direct connection with the existing C line. Currently the K line consists of 7 stations.

The K Line connection to the C Line is anticipated in late 2024, while AMC Station construction continues, and the AMC Station opening is also anticipated in late 2024.

LACMTA Accident Summary

Accident Type	LACMTA
Train vs Vehicle (48.8%)	39
Other/Train vs Train/Yard Collision (32.5%)	26
Train vs Person/Train vs Bicycle/Other Conveyance (with rider) (16.3%)	13
Evacuation/Fire/Smoke (2.5%)	2
Mainline Derailment/Yard Derailment	0
Grand Total	**80**

Table 7: LACMTA Accidents Primary Causal Factors - Calendar Year 2023

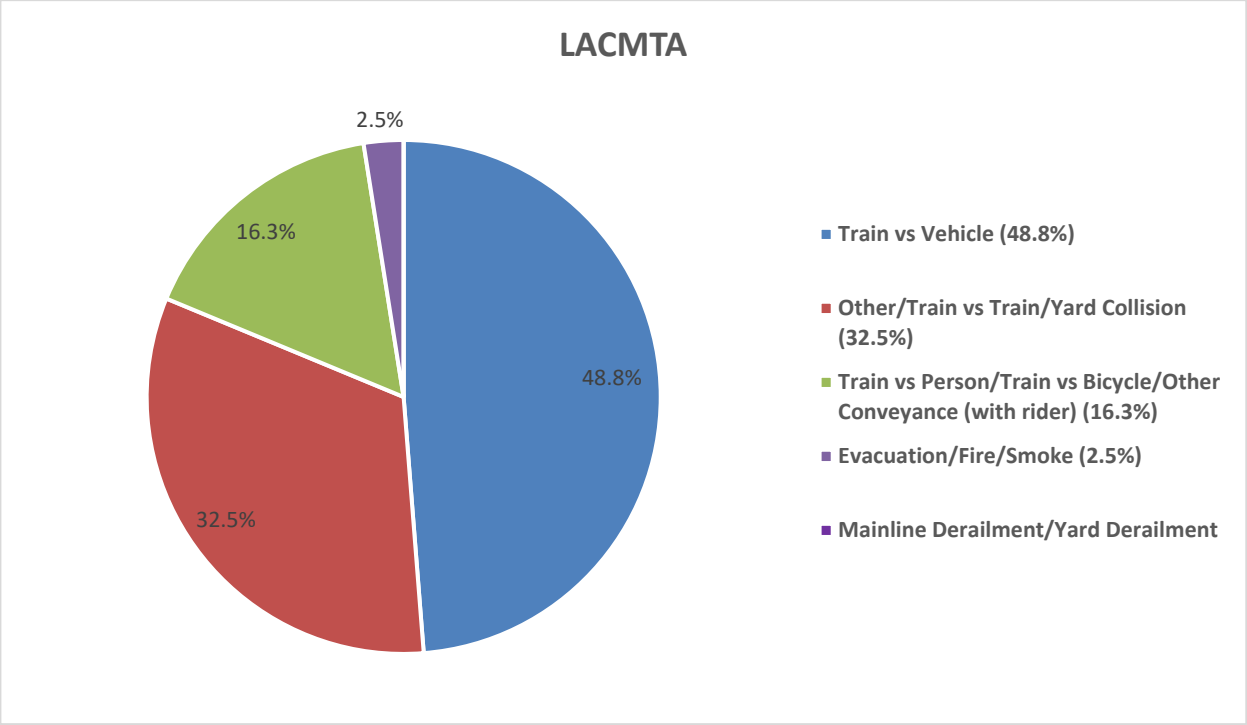


Figure 5: LACMTA Accidents Primary Causal Factors - Calendar Year 2023

NOTE: The category "Other" is comprised of all accidents not included in the other categories. These include accidents resulting in substantial damage or evacuations, and a collision with an object such as signs/poles, crossing gates, signal cabinet door, motor vehicles, shopping carts, etc. left on or next to the tracks.

System Expansions and Capital Projects

P3010 New Vehicle Procurement Project

LACMTA is in the process of procuring as many as 235 new rail vehicles. These vehicles are intended to expand passenger capacity for the recently completed projects (Expo Phase 2 and Foothill Extension Phase 2) and the future LAX/Crenshaw line currently under construction. The SCP was approved by Resolution ST-149 (1/10/2013). On January 7, 2021, LACMTA received the final rail car of the order at the new maintenance yard for the Crenshaw/LAX Transit Project. This shipment completed the P3010 Light Rail Vehicle (LRV) fleet, the largest rail fleet at LACMTA. As rail cars are prepared for service, CPUC staff will approve them after reviewing the Car History Books (testing documentation). On March 4, 2016, CPUC staff gave LACMTA personnel approval to place the first five cars in service.

All 235 P3010 cars have been accepted by LACMTA and CPUC. CPUC staff sent the final approval letter for the last 2 cars on May 11, 2023. Now that all cars have been approved, LACMTA will need to resubmit an the SCVR with final supporting documentation. Throughout 2023, LACMTA testing continued in preparation for CPUC approval. There were two Car History Book review meetings in 2023 between CPUC staff and LACMTA personnel that resulted in certification of nine additional vehicles, totaling to 235 vehicles.

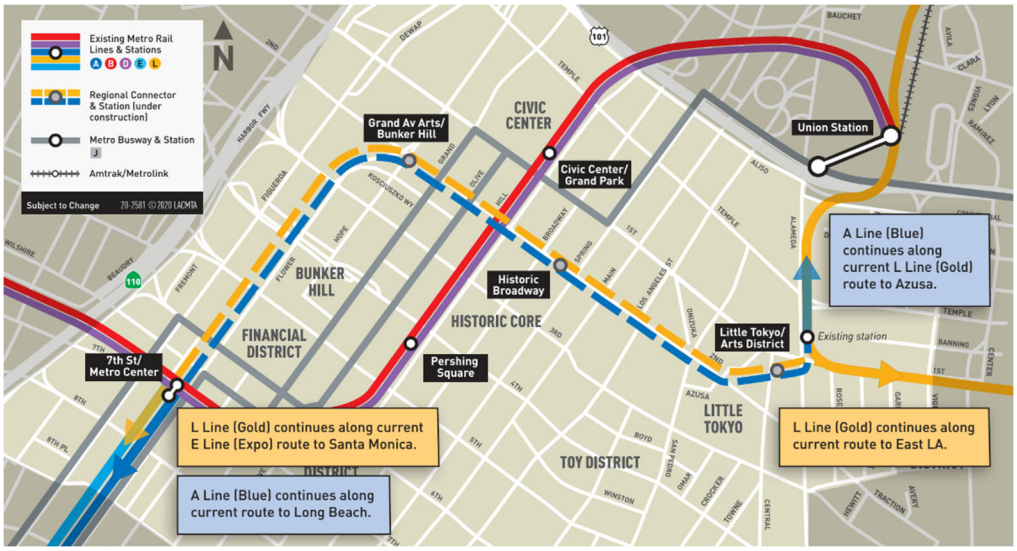
HR4000 Heavy Rail Vehicle Procurement

LACMTA is in the process of procuring a base order of 64, with options for up to 282, new heavy rail vehicles to provide for the future expansions of its Regional Connector and D Line (formerly known as Purple Line) Extensions, and to replace the aging heavy rail vehicle fleet operating on the B and D Lines (Red/Purple Line) subways. Resolution ST-185 (10/25/2018) approved the procurement option. The vehicle manufacturer is China Railway Rolling Stock Corporation (CRRC). The first HR4000 married pair arrived on site in Los Angeles in July 2023 and the second one arrived in December 2023. LACMTA continues to monitor manufacturing progress at both the Springfield, Massachusetts assembly site and Changchun, China manufacturing site.

Image of proposed HR4000 Heavy Rail Vehicle

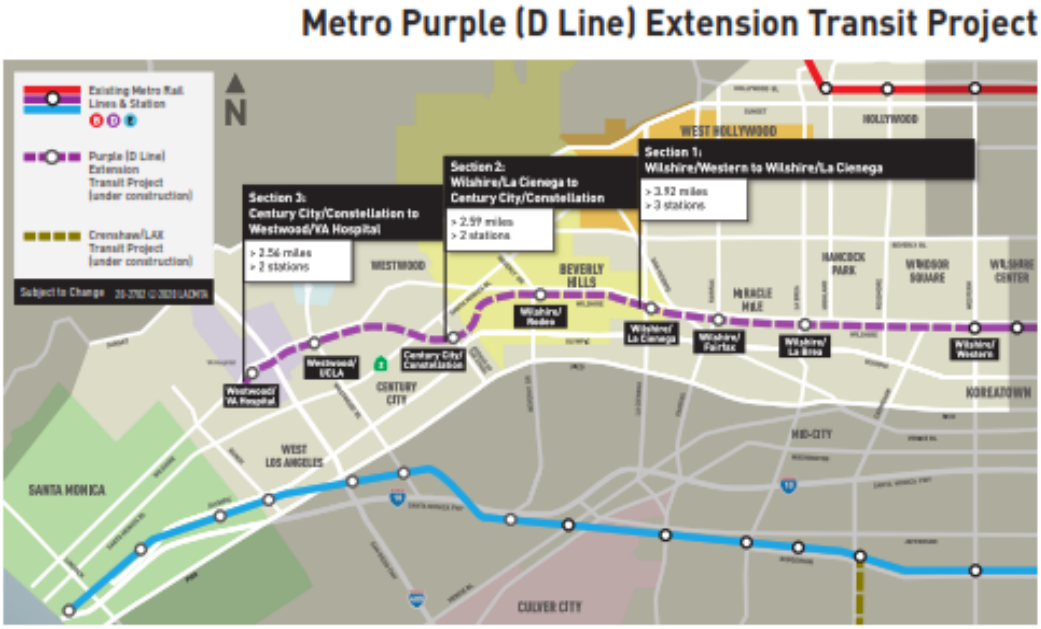
Regional Connector Project

The Regional Connector Project is a 1.9-mile underground light-rail extension with three new stations in downtown Los Angeles. This project opened to the public on June 16, 2023, and provided a direct connection between the L, A, and E lines that previously required a transfer from the B or D lines. The SCVR was approved by CPUC on 5/26/2023, and LACMTA addressed the remaining concerns satisfactorily prior to opening. The project provides a direct connection between the cities of Azusa and Long Beach, and between East Los Angeles and Santa Monica, and in general allows LACMTA to have much greater flexibility with regard to route options within LA County.



D Line (Westside) Extension Project

The D Line (formerly known as the Purple Line) Westside Extension project will extend subway service from the current terminus at the Wilshire/Western Station to Westwood (UCLA and the Veteran's Administration Hospital). This extension will consist of nearly nine miles of heavy rail subway, seven stations and is separated into 3 different projects/segments (PLE1, PLE2, PLE3). The design build contractor for Segment 1 is STS (a joint venture of Skanska, Traylor, Shea). The design build contractor for Segment 2 is TPOG (a joint venture of Tutor Perini and O&G). Tutor Perini is also the design build contractor for Segment 3 tunneling and stations.



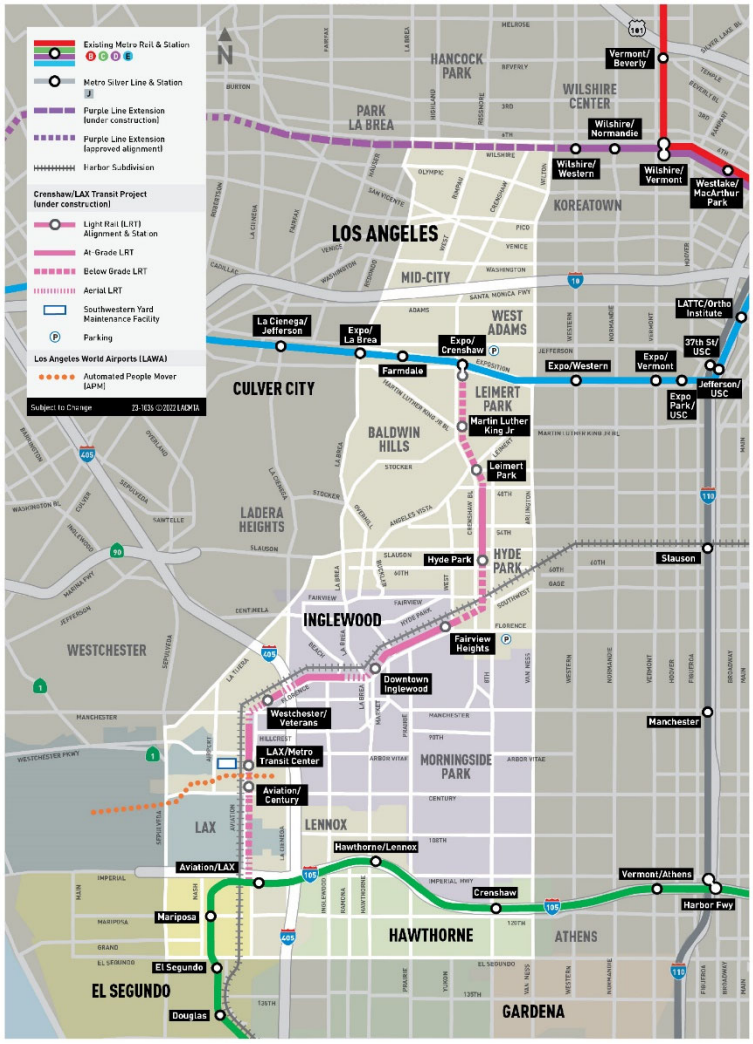
The planned revenue service years for Purple Line Segments 1, 2, and 3 are 2025, 2026, and 2027, respectively. As of December 2023, construction progress for PLE1 is at 89%, PLE2 is at 62%, and PLE3 is at 51%. CPUC staff are working with the project contractors/management and LACMTA's safety department to ensure design, construction, and testing conformance of safety related requirements through the participation at the Safety Certification Review Committee meetings and Fire Life Safety Committee meetings.

A Line (Formerly L Line) Foothill Extension Phase 2B

The Foothill Phase 2B light rail transit project extends the L Line (Gold Line) from the current terminus of Azusa Station to the City of Pomona (in Los Angeles County), with a contract option for the design build contractor (Kiewit-Parsons) to build to the City of Montclair (in San Bernardino County). Major construction commenced in July 2020, beginning with track and warning equipment installation at the rail crossings. Project completion is scheduled for 2025. CPUC staff have been meeting with the project teams, LACMTA, and the Foothill Construction Authority, to audit and review design conformance of safety related requirements. The SCP was approved by the CPUC in Resolution ST-194 (1/19/2017). As of the end of 2023, project completion is at 81% light rail track installation and bridgework has been completed and the project continues to make progress on light rail train control, power systems, and stations.

Crenshaw/LAX Corridor Project

LACMTA is constructing a new light rail line from the existing E Line (formerly known as Expo Line) Crenshaw Station to the existing C Line (formerly known as Green Line) Aviation/LAX Station. An additional at-grade station is included in the project at 96th Street and Aviation, which will later be known as the LAX/Metro Transit Center but is currently called the Airport Metro Connector (AMC), and it will connect to the future LAWA APM system at Los Angeles International Airport (LAX) currently under construction. The K line will travel 8.5 miles and will serve the Cities of Los Angeles, Inglewood, El Segundo, and portions of unincorporated Los Angeles County. The SCP was approved by the CPUC in Resolution ST-143 (10/3/2014).



The AMC station is under construction in the southern segment of the alignment. This station will connect to the future LAX APM. To avoid the construction zone but allow revenue service, K Line opened to the public on October 7, 2022, from the Expo/Crenshaw Station to Westchester/Veterans station, with a turnback operation north of the construction zone. The SCVR for the first phase of opening was approved by CPUC on 9/28/2022, and remaining concerns were addressed satisfactorily prior to opening. The rest of the alignment leading south that will connect to the future LAX APM and C Line, will open within the next 2 years.

East San Fernando Valley Project

The East San Fernando Valley project alignment will start at the Van Nuys Bus Rapid Transit Orange line station (in City of Los Angeles) and head north for 6.7 miles through the San Fernando Valley, adding 11 new stations, with 34 trains serving this alignment. It will be a street running system for the most part with approximately 3 miles on a shared corridor with Metrolink/Amtrak commuter trains. LACMTA has contracted Gannett Fleming Inc. to develop a 30/60% design package. CPUC staff

have been working with the project team and LACMTA on development and drafting of the SCP, which was approved by the Commission on December 16, 2021. Forecasted revenue service date is June 2028. LACMTA has completed most of the advanced design for this project and released the Progressive Design Build (PDB) procurement documents in Summer 2022. The PDB delivery method intends to bring the contractor and their designer into the project early, to take the design from 30/60 to approximately 85% while collaborating with LACMTA and third parties on pricing the construction costs. On December 2, 2022, LACMTA celebrated the groundbreaking for advanced utility work for this project worth approximately 9 million dollars. The California State Transportation Agency (CalSTA) has announced that LACMTA will receive a full request of $600 million in state grant funding for a key expansion of the LACMTA rail system, the East San Fernando Valley Light Rail Transit Corridor Project (ESFV). Real estate acquisition activities have begun and are expected to run through 2027. In February 2023, LACMTA awarded the PDB contract to the San Fernando Transit Constructors Joint Venture (SFTCJV) made up of SKANSKA, Stacy and Witbeck, and AECOM.

Southeast Gateway Line (Previously West Santa Ana Branch Transit Corridor Project)
LACMTA is evaluating a new light rail transit line that will connect southeast Los Angeles County to downtown Los Angeles, serving the cities and communities of Artesia, Cerritos, Bellflower, Paramount, Downey, South Gate, Cudahy, Bell, Huntington Park, Vernon, unincorporated Florence-Graham community, and downtown Los Angeles. The Southeast Gateway Line is a 19-mile corridor project. LACMTA submitted a proposed funding plan/report and is exploring Public-Private Partnerships (P3) to bridge the funding gap. On January 27, 2022, the LACMTA Board of Directors approved Los Angeles Union Station as the northern terminus of the Southeast Gateway Line Project. The 14.8-mile Slauson/A Line to Pioneer route was also approved as the Locally Preferred Alternative (LPA) for the project's initial segment between Artesia and downtown Los Angeles. The LPA will be advanced as part of the analysis in the Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR), developing the First/Last Mile plans for the LPA which will include opportunities for public involvement. The project's groundbreaking is anticipated in 2024-25, with operation of the new line expected in 2033-35. Project executed all master Cooperative Agreements with 10 corridor cities in October 2023.

NORTH [SAN DIEGO] COUNTY TRANSIT DISTRICT

San Diego's North County Transit District (NCTD) was created by Senate Bill 802 in 1975 and started operations as North County Transit District on July 1, 1976. The NCTD Board of Directors is made up of one representative from each incorporated city served by NCTD, plus the County Supervisor representing the County's Fifth District which covers unincorporated areas of north San Diego County and a non-voting member from City of San Diego. The NCTD is responsible for planning, developing, and implementing a fixed route system throughout North San Diego County. The region is described as the San Diego County-Orange County border at the northern end, City of La Jolla at the southern end, and from the western coast of the City of Oceanside to the City of Ramona at the eastern end.

The NCTD is responsible for maintaining the San Diego rail subdivision, purchased in 1994, which extends from the San Diego County-Orange County border south to downtown San Diego for commuter rail service. The NCTD is also responsible for maintaining the Escondido subdivision which extends from City of Oceanside to City of Escondido for SPRINTER hybrid[4] rail service. Only the Escondido subdivision hosting SPRINTER service is jurisdictional to the rail transit safety regulations and are included in this SSOA Annual Report.

NCTD had contracted out maintenance and operations of the SPRINTER system for many years, but as of June 25, 2023, NCTD has transitioned Maintenance of Way and Maintenance of Signals functions in-house. On June 26, 2022, NCTD had transitioned its Operations functions in-house as the first of the two-part transition.

[4] Hybrid Rail means rail system primarily operating routes on the national system of railroads, but not operating with the characteristics of commuter rail. This service typically operates light rail-type vehicles as diesel multiple-unit trains (DMU's). These trains do not meet Federal Railroad Administration standards, and so must operate with temporal (time of operation) separation from freight rail traffic.

NCTD Rail System Description

The NCTD SPRINTER system operates over 22.3 miles, from the City of Oceanside to the City of Escondido, partially double-tracked, with 15 stations. NCTD's SPRINTER line is classified as hybrid rail on semi-exclusive right-of-way[5]. There is a shared corridor with Amtrak and COASTER commuter trains beginning at the Oceanside Transit Center and ending less than a quarter mile South of the Oceanside Boulevard grade crossing, where SPRINTER tracks turn east toward City of Escondido. In addition to the shared corridor, most of NCTD track on the SPRINTER line is jointly used by rail transit and freight operations under a temporal separation[6]. The BNSF Railway operates freight service that shares track with NCTD on the SPRINTER line. BNSF Railway operates during the late-night hours outside of NCTD SPRINTER revenue service hours, under a Federal Railroad Administration (FRA) waiver. The FRA approved NCTD's standard operating procedures that ensure rail transit and freight service remain temporally separated.

The SPRINTER system began revenue service on March 9, 2008. The Escondido Transit Center Station and Vista Transit Center Station are the main transfer stations for rail transit/bus connections, and the Oceanside Transit Center Station provides service connections to Amtrak, NCTD COASTER commuter train, and the NCTD BREEZE bus system. The SPRINTER operates through four jurisdictions including the Cities of Oceanside, San Marcos, Vista and Escondido.

NCTD currently has no SPRINTER capital projects under construction. NCTD awarded a contract for an early warning detection system to Harsco on April 11, 2023, that will bring them into full compliance with Commission General Order 175-A (Rules and Regulations on Roadway Worker Protection). The technology is meant to offer another layer of safety by warning workers of incoming train traffic. As of December 31, 2023, they have the devices on-hand and all maintenance employees trained for use.

[5] A semi-exclusive alignment is in a separate right-of-way or along a street or railroad right-of-way where motor vehicles, pedestrians, and bicycles have limited access and cross only at designated locations, such as rail crossings.

[6] Temporal separation exists when no simultaneous operation of light rail transit and freight trains on the same track occurs.

NCTD SPRINTER SYSTEM MAP

NCTD Accident Summary

Accident Type	NCTD
Other/Train vs Train/Yard Collision (66.7%)	4
Evacuation/Fire/Smoke (16.7%)	1
Train vs Person/Train vs Bicycle/Other Conveyance (with rider) (16.7%)	1
Train vs Vehicle (0%)	0
Mainline Derailment/Yard Derailment (0%)	0
Grand Total	**6**

Table 8: NCTD Accidents Primary Causal Factors - Calendar Year 2023

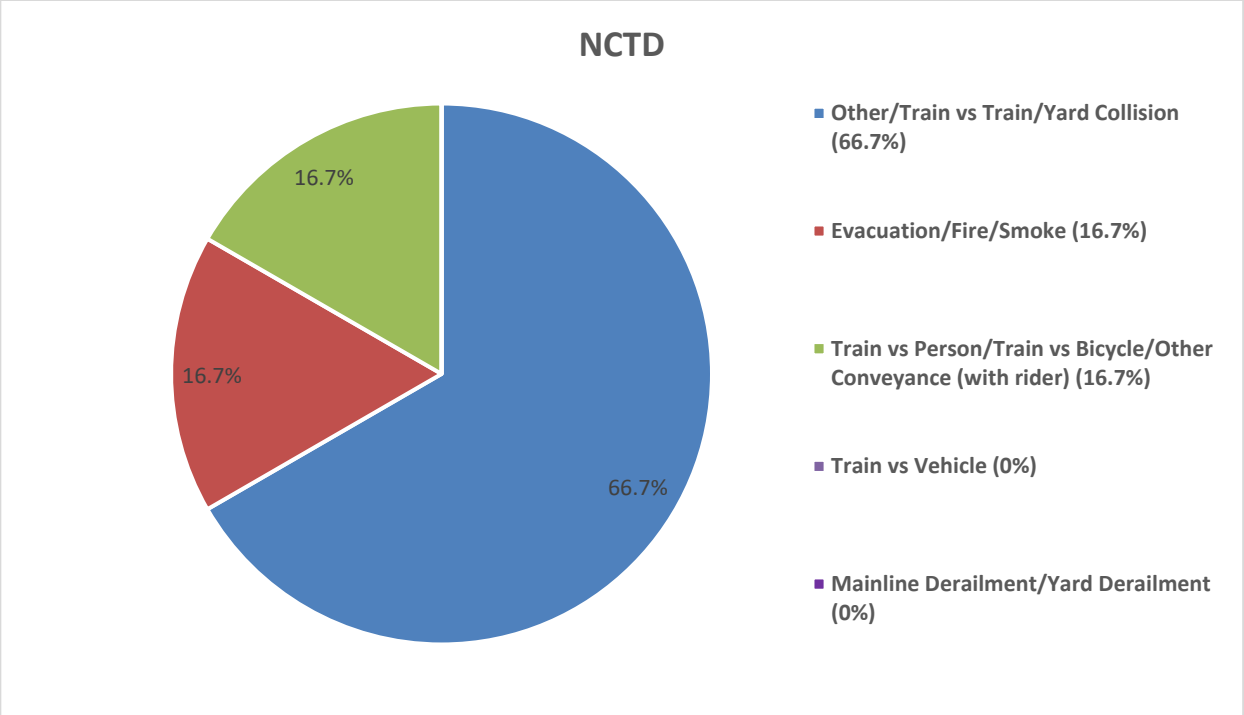


Figure 6: NCTD Accidents Primary Causal Factors - Calendar Year 2023

NOTE: The category "Other" is comprised of all accidents not included in the other categories. These include accidents resulting in substantial damage or evacuations, and a collision with an object such as signs/poles, crossing gates, signal cabinet door, motor vehicles, shopping carts, etc. left on or next to the tracks.

ORANGE COUNTY TRANSPORTATION AUTHORITY

Image of OC Streetcar

The OCTA has received a full-funding grant agreement from the FTA and is constructing a streetcar system consisting of 4.15 miles of track between the Santa Ana Regional Transportation Center in the City of Santa Ana and the Harbor Boulevard/Westminster Avenue intersection in the City of Garden Grove. The system will be a completely new rail transit streetcar system, with OCTA becoming a new jurisdictional rail transit agency to the CPUC and will be known as the OC Streetcar. The OCTA Board of Directors is comprised of seventeen members (mostly elected officials), and the Caltrans District 12 Director serving as the 18th member in an ex-officio capacity. The CPUC has approved the system SCP for the project in Commission Resolution ST-191 (4/27/2017). The system is planned for revenue service in 2045.

The trackway includes both operations along semi-exclusive right-of-way[7], in the old Pacific Electric (PE) railway right-of-way, and street-running operations, along Santa Ana Boulevard and 4th Street in the City of Santa Ana. Bi-directional operations occur over a new bridge north of the existing PE Santa Ana River Bridge. The Project includes 10 stations in the eastbound direction and 10 stations in the westbound direction. A new operation and maintenance facility will be bordered by 5th Street to the north, the PE Right-of-Way to the south, approximately 500 feet west of Raitt Street to the east, and approximately 1,000 feet west of Raitt Street to the west, in the City of Santa Ana.

[7] A semi-exclusive alignment is in a separate right-of-way or along a street or railroad right-of-way where motor vehicles, pedestrians, and bicycles have limited access and cross only at designated locations, such as rail crossings.

The system is not yet operating, and current project construction activities include track installation, overhead catenary system (OCS) pole installation, maintenance facility construction, and bridge construction.

Construction is approximately 82% complete. Vehicle procurement has begun, with the first five of eight vehicles inspected and in storage at Siemens. The remaining three vehicles are in various stages of inspection and testing.

OC Streetcar Future System Map

SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY

The SFMTA is the public transportation system of the City and County of San Francisco. The San Francisco Municipal Railway (MUNI), along with the San Francisco Department of Parking and Traffic, became a part of the SFMTA on March 1, 2000. A seven-member board, appointed by the City of San Francisco Mayor, governs the SFMTA and the Director of Transportation serves as the agency's senior management officer.

SFMTA Rail Vehicles

The SFMTA MUNI was the first publicly owned streetcar system in a major city in the United States and began operation in 1912. It has a relatively small service area of just 46.7 square miles. SFMTA MUNI's fleet of rail transit vehicles consist of the subway and surface operating LRVs, surface operating Historic Streetcars (HSC), and cable cars.

SFMTA Rail System Description

SFMTA MUNI LRT operations are carried out by the Green Metro Division. It operates LRVs on six different lines.

- J – Church Line
- K – Ingleside Line
- L – Taraval Line
- M – Ocean View Line
- N – Judah Line
- T – Third Street Line

Trains on the SFMTA MUNI Metro Subway and Twin Peaks Tunnel operate under the control of a fully automated communications-based train control system. Most rail operations are on the surface, in semi-exclusive and mixed traffic right-of-way, with up to a 7% grade in some locations.

The Green Metro Division is also responsible for the operation of the HSC. The HSCs are operated on the surface and principally on the double track F – Market and Wharves Line.

The Cable Car Division is responsible for the operation of the cable cars. It provides passenger cable car service on three surface lines and traverse grades of up to 21%. The SFMTA MUNI Cable Car Division operates three lines. They include the Powell-Hyde Line, the Powell-Mason Line, and the California Street Line. Operating in mixed traffic, cable cars and vehicular traffic sharing traffic lanes, over narrow congested streets. A moving cable, below the surface of the street, provides propulsion for the cable cars via a mechanical grip, extending from the cable car and down through a continuous slot between the running rails. All onboard propulsion and braking controls for the cable cars are mechanical and are hand or foot-operated by the cable car operator. Cable car operation and equipment has changed little since the late 19th century and relies heavily on human performance and craft.

SFMTA MUNI System Map

SFMTA Accident Summary

Accident Type	SFMTA
Train vs Vehicle (69.9%)	58
Other/Train vs Train/Yard Collision (14.5%)	12
Train vs Person/Train vs Bicycle/Other Conveyance (with rider) (9.6%)	8
Mainline Derailment/Yard Derailment (6%)	5
Evacuation/Fire/Smoke (0%)	0
Grand Total	**83**

Table 9: SFMTA (MUNI) Accidents Primary Causal Factors - Calendar Year 2023

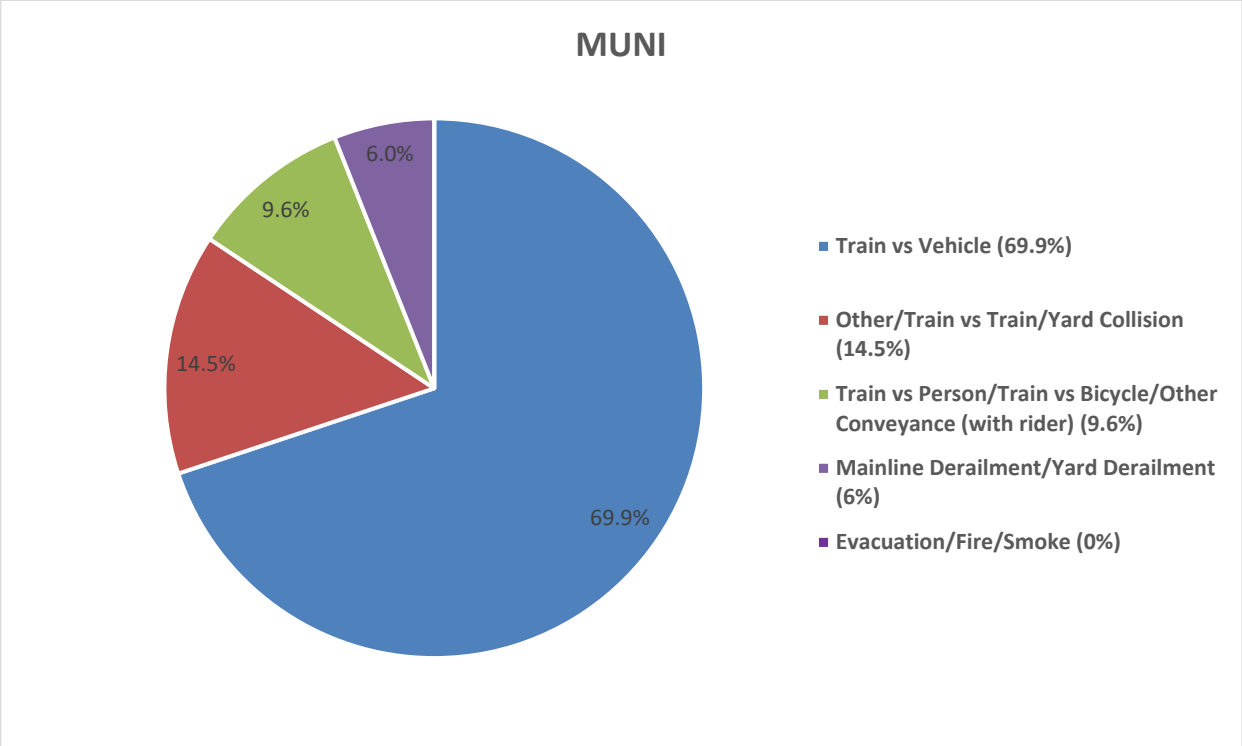


Figure 7: SFMTA (MUNI) Accidents Primary Causal Factors – Calendar Year 2023

NOTE: The category "Other" is comprised of all accidents not included in the other categories. These include accidents resulting in substantial damage or evacuations, and a collision with an object such as signs/poles, crossing gates, signal cabinet door, motor vehicles, shopping carts, etc. left on or next to the tracks.

System Expansions and Capital Projects

Third Street Light Rail Extension Phase II (Central Subway Project)

Phase II of SFMTA's Third Street Light Rail extension project, commonly known as the Central Subway Project, extended SFMTA's Third Street Line north of the intersection of Fourth Street and King Street to Chinatown on Stockton Street near Washington Street. The project will construct new surface tracks along Fourth Street to a portal structure between Bryant Street and Harrison Street, where two newly excavated precast concrete-lined subway tunnels will carry light rail traffic underneath Fourth Street to Market Street, then continue under Stockton Street. One new at-grade station is planned at Fourth Street and Brannan Street, and three new subway stations will be constructed at Yerba Buena/Moscone (Fourth Street and Folsom Street), Union Square/Market Street (Stockton Street and Geary Street, with mezzanine-level access to the existing Powell Street BART and Muni Station), and Chinatown (Stockton Street and Washington Street). The project SCP was approved by the CPUC in Resolution ST-102 (3/26/2009). SFMTA completed construction in Fall of 2022.

On October 28, 2022, SFMTA requested approval from RTSB to open Central Subway for passenger service. On November 14, 2022, the RSD Director sent an approval letter to SFMTA providing authority to open the Central Subway project for passenger service. The letter states that due to the soft launch and remaining outstanding final test reports on some items completed in recent days, a final Safety and Security Certification Verification Report (SSCVR) will be required.

On December 16, 2022, SFMTA submitted Revision 2 of their SSCVR, which demonstrates Central Subway's readiness to start full revenue service along with a letter requesting CPUC's authorization to start daily passenger service on the Central Subway on Saturday, January 7, 2023.

On January 5, 2023, RTSB sent the letter to SFMTA providing authority for SFMTA to initiate full revenue service on the Central Subway Line beginning January 7, 2023.

LRV4 Vehicle Procurement

SFMTA New Siemens Rail Vehicle

SFMTA has initiated a new LRV procurement project (LRV4 Project) to acquire up to 264 vehicles over a period of 15 years. The scope of the LRV4 project will include the design, manufacture, delivery, and test of up to 260 LRVs together with the associated services, spare parts, special tools, training, and documentation. The base quantity is 175 new vehicles including an initial delivery of 24 vehicles, scheduled for delivery to supplement the fleet when the Third Street Phase 2 (Central Subway) extension opens. Another 151 new vehicles are projected for the replacement of the existing 151 LRVs with a projected completion date in 2028. SFMTA has issued contract modifications for an additional 44 new vehicles, bringing the total fleet size to 219. An option for an additional 45 new vehicles may be issued in the future. The LRV4 is expected to have a 30-year life, which includes a mid-life overhaul. The LRV4 Procurement project will be funded through several different sources including federal funds. The SCP for the project was approved by the CPUC in Resolution ST-190 (11/10/2016).

After delivery of 68 cars by 2020, SFMTA found issues with the doors. SFMTA have since stopped accepting new cars and asked Siemens to resolve the issue. Siemens redesigned sensitive edges and rubber elements for the doors for improved sensitivity for patron use and updated the rear viewing technology.

During 2021, SFMTA and its contractor, Siemen's worked to resolve coupler shear pin failures that were being experienced with the new vehicles, and SFMTA did not receive any vehicles during the year. The issue was traced back to the SFMTA operating environment, including unusually tight curves and hilly terrain that applies additional stress on the shear pins. This issue has been resolved and the shear pins modified to prevent the failures from occurring.

Currently, SFMTA has 129 LRV4 vehicles that have completed testing and have been authorized by the CPUC for revenue service operation.

SACRAMENTO REGIONAL TRANSIT DISTRICT

SRTD is governed by an 11-member Board of Directors. The Board is comprised of members of the Sacramento, Rancho Cordova, Citrus Heights, Elk Grove, and Folsom City Councils, as well as the Sacramento County Board of Supervisors.

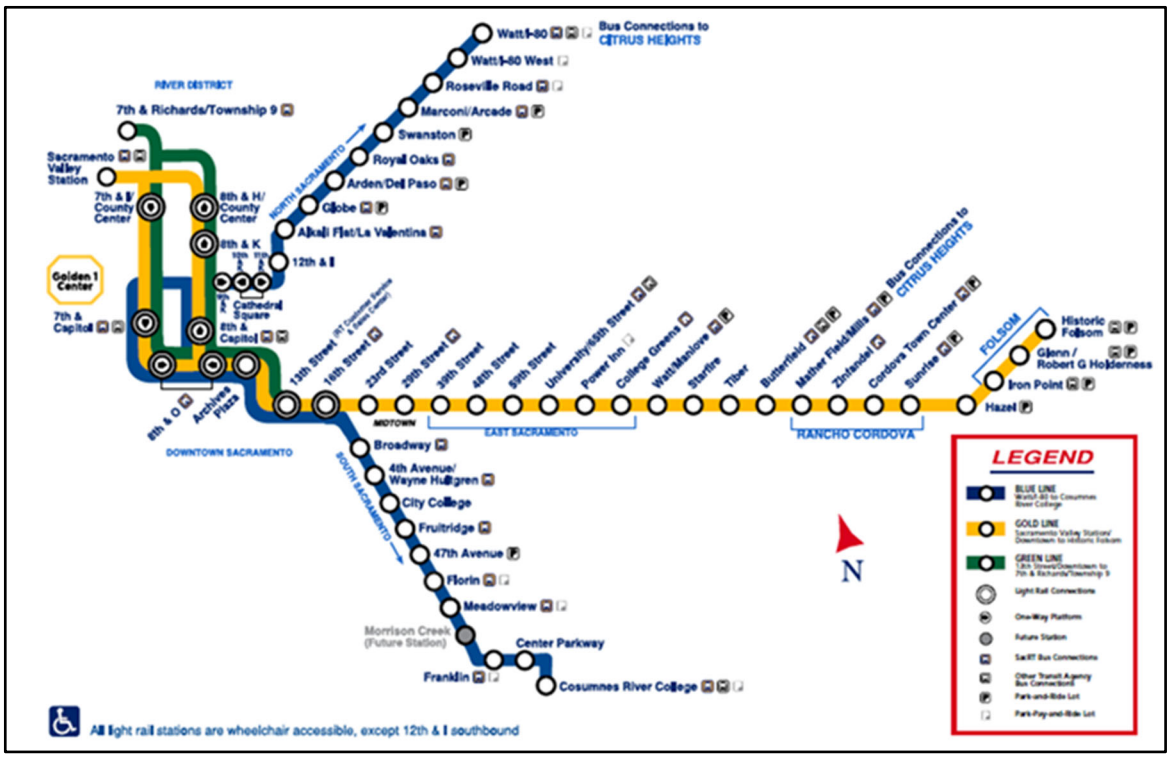
SRTD Rail System Description

SRTD light rail system currently operates over approximately 43 miles, covering a 422 square-mile service area with 54 stations. SRTD began operations in 1973 with the acquisition of the Sacramento Transit Authority. Over the next decade, SRTD continued to expand its bus service while city, county and state government officials worked together to develop a light rail system. In 1987, the 18.3-mile light rail system opened, linking the northeast (Interstate 80) and eastern (Highway 50) corridors with downtown Sacramento. In 1998, SRTD began expanding its light rail system to further meet the transportation needs of the Sacramento area. Since then, several light rail expansion projects have been completed, including:

SRTD Light Rail Train at the State Capital

1998 - 2.3-mile Mather Field extension and Brighton Bridge double track project
2003 - Bee Bridge double track project
2003 - 6.3-mile South Line Phase I extension
2004 - 2.8-mile extension from Mather to Sunrise
2005 - 2.4-mile extension from Sunrise to Folsom
2006 - 0.55-mile extension to Amtrak Station
2009 - Watt Avenue Grade Separation
2012 – Green Line Township 9 Extension to Richards Boulevard
2016 – South Line 4.3-mile extension to Cosumnes River College

The Gold Line runs from the Historic Folsom Station in downtown Folsom to the Sacramento Valley station at the Amtrak Station in downtown Sacramento. The Blue Line runs from the Watt/I-80 station in the northeast corridor to the Cosumnes River College to the south. In 2012, SRTD completed the Green Line, a one-mile extension from downtown Sacramento to Richards Boulevard. This line includes 2 stations, running a 30-minute headway service from the Township 9 station on Richards Boulevard to the existing 13th Street station.



Sacramento Regional Transit District System Map

SRTD Accident Summary

Accident Type	SRTD
Train vs Vehicle (46.8%)	22
Other/Train vs Train/Yard Collision (31.9%)	15
Train vs Person/Train vs Bicycle/Other Conveyance (with rider) (12.8%)	6
Mainline Derailment/Yard Derailment (6.4%)	3
Evacuation/Fire/Smoke (2.1%)	1
Grand Total	47

Table 10: SRTD Accidents Primary Causal Factors - Calendar Year 2023

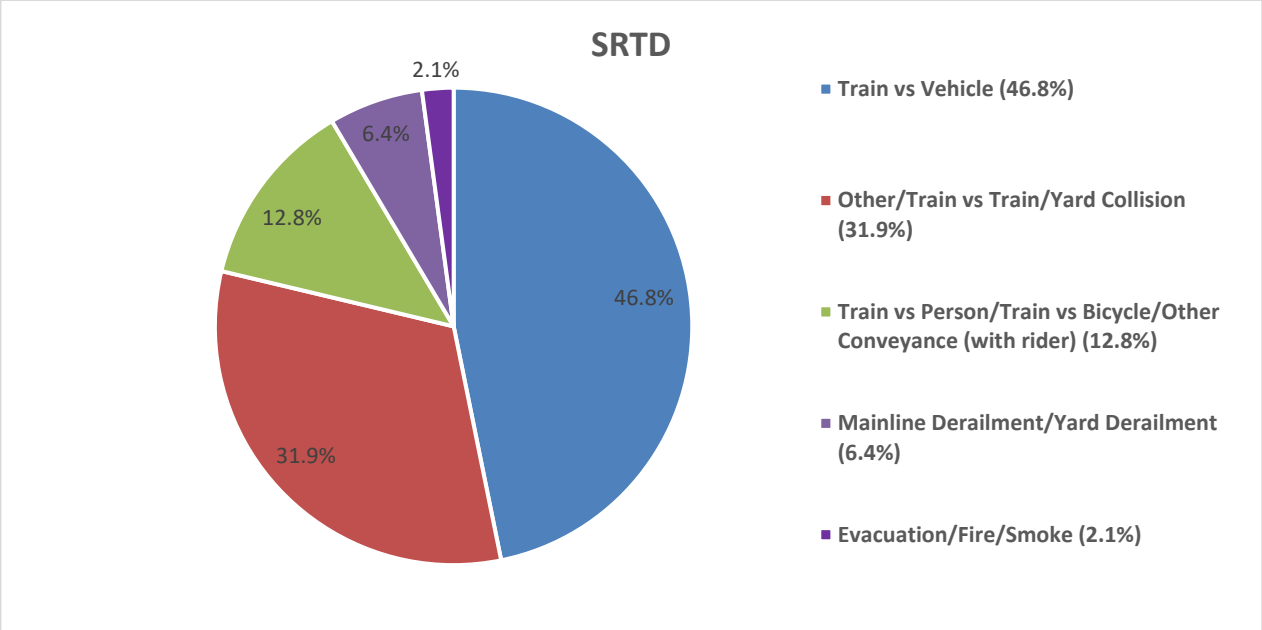


Figure 8: SRTD Accidents Primary Causal Factors - Calendar Year 2023

NOTE: The category "Other" is comprised of all accidents not included in the other categories. These include accidents resulting in substantial damage or evacuations, and a collision with an object such as signs/poles, crossing gates, signal cabinet door, motor vehicles, shopping carts, etc. left on or next to the tracks.

System Expansions and Capital Projects

LRV (Light Rail Vehicle) Procurement Project:

SRTD has secured funding for 27 new Siemens Transportation Group S700 Light Rail Vehicles scheduled for delivery starting in February 2023 and anticipated to enter revenue service in mid-2024.

Light Rail Station Addition – Dos Rios Station:

SRTD has secured funding for the Dos Rios Light Rail Station project. Construction bids are expected to be sent out by Spring 2024. Site environmental conditions are being remediated by the city and have delayed the start of construction.

Gold Line Double Track Project:

SRTD has secured funding for the Gold Line Doubletrack project and has announced plans to begin construction in January 2024. Two passing tracks and changes to grade crossings will be constructed to allow for 15-minute service from Folsom to Sacramento.

Light Rail Station Addition – Railyards Station

The city of Sacramento has secured funding for the Railyards Station project scheduled to begin construction in late 2024. The project will construct a station for one direction of travel. The project will also realign approximately 0.8 mile of track, permitting development of the area. The project is managed by the City of Sacramento, with SRTD providing design consulting and acceptance.

Gold Line Low-Floor Vehicle Station Modification Project:

SRTD has secured partial funding to begin the Gold Line low-floor vehicle platform modifications and is scheduled to complete construction in fall of 2024. Existing Gold Line stations will have the platforms raised to accommodate a two-car consist of the S700 Low-Floor LRVs; and maintain sufficient existing platform and Elderly and Handicapped (E&H) ramps to accommodate the legacy LRV fleet.

Sacramento Streetcar Project:

To maintain project viability, the project has been reduced in scope and the plan is that a revised project is being transferred to SRTD from the Cities of West Sacramento and Sacramento, the original grant applicants. SRTD will now become the lead agency and the project will be an expansion of SRTD's existing light rail system that will still link the two cities over the Sacramento River. The final design of the reduced scope system is ongoing.

SAN DIEGO TROLLEY, INC.

The California legislature created the Metropolitan Transit Development Board (MTDB) in 1975 by Senate Bill 101, empowering the board to design, engineer, and build fixed guideway facilities within San Diego County. The MTDB established the San Diego Trolley, Inc. in August 1980 as a wholly owned subsidiary responsible for operation and maintenance of the LRT system. In 2005, MTDB changed its name to the Metropolitan Transit System (MTS). Its board of directors has 15 members selected as follows: four appointed from the City of San Diego (the Mayor of San Diego and 3 San Diego City Council members); two appointed from the City of Chula Vista (the Mayor of Chula Vista and a Chula Vista City Council Member); and one appointed from each city council of Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway and Santee; and one appointed from the San Diego County Board of Supervisors.

The area of jurisdiction is about 570 square miles serving a population of 3 million, approximately 75% of southwestern San Diego County. The SDTI LRT system operates over 53.5 miles on three routes, mostly double-tracked, with 53 stations. In May 2022 MTS launched the Youth Opportunity Pass Pilot Program, which allows youths 18 and under to ride up to one-year for free.

San Diego Trolley Light Rail Vehicle in Downtown San Diego

SDTI's rail lines are classified as light rail on semi-exclusive right-of-way. There is a shared corridor with BNSF Railway, Amtrak, and Coaster trains through downtown San Diego. In addition to the shared corridor, portions of SDTI track on the Blue and Orange Lines are jointly used by LRT and freight operations under temporal separation with limited night-time joint operations. The San Diego and Imperial Valley Railroad (SDIV), a subsidiary short line railroad owned by Rail America Corporation, shares track with SDTI on the Blue line from the Imperial Transfer Station to the International Border. SDTI and SDIV share track on the Orange Line from Commercial Street at the Imperial Junction to Bradley Avenue in El Cajon, California. SDIV operates freight trains during the early morning hours with a fringe period of overlap with SDTI LRT operations under a

FRA waiver. FRA approved SDTI standard operating procedures ensure during this overlap mode of operation the LRVs remain spatially and temporally separated.

SDTI Rail System

Blue Line - Revenue service began on July 26, 1981. The Blue Line extends 30 miles from the San Ysidro Station at the Mexican Border to University Town Center. Of the total 30 miles, 1.4 miles (C Street & India to 12th & Imperial) are operated on city streets, and 14 miles (12th & Imperial to San Ysidro) are operated on semi-exclusive right-of-way. The Blue Line is comprised of 32 stations, sharing six stations with the Orange and Silver Lines downtown and five stations with the Green Line. The Blue Line operates through four jurisdictions in the Cities of San Diego, National City, Chula Vista, and an unincorporated area of San Diego County.

Orange Line – Revenue service on the first phase, from Imperial Transfer to the Euclid Avenue station, began on March 23, 1986. The line was extended in 1989 to El Cajon, and to Santee in 1995. The Orange Line currently extends 16.9 miles from the Santa Fe Depot station (via the downtown San Diego C Street corridor) to the El Cajon Transit Center station. Of the 16.9 miles, 1.7 miles of track are operated on city streets (C Street & India to 32nd & Commercial). The line continues east for an additional 14.6 miles on semi-exclusive right-of-way from 32nd and Commercial to Arnele Avenue. The Orange Line is comprised of 19 stations, sharing five stations with the Blue and Silver Lines downtown and five stations with the Green Line (one in downtown and four in East County). The Orange Line operates through four jurisdictions in the Cities of San Diego, Lemon Grove, La Mesa and El Cajon.

Green Line - Revenue service began on July 10, 2005. The Green Line begins at the Imperial Transfer Station and extends 23.8 miles from the 12th & Imperial Station along the Bayside to Old Town Transit Center through Mission Valley to Santee Town Center, including a 0.7-mile subway tunnel, under San Diego State University (SDSU). The Green Line is comprised of 27 stations, sharing five stations with the Orange Line (two in downtown and three in East County), one station with the Blue Line downtown, and four stations with the Silver Line downtown. The Green Line operates through four jurisdictions in the Cities of San Diego, La Mesa, El Cajon, and Santee.

Silver Line – Revenue service on the Silver Line began in August 2011. The Silverline is a 2.7-mile loop in downtown San Diego along Harbor Drive, on C Street, and Park Blvd, completes its loop at the 12th & Imperial, and is host to restored 1940's era Presidential Conference Committee (PCC) streetcars. The Silver Line is comprised of nine stations, sharing six with both the Blue and Orange Lines, and three with the Green Line.

SAN DIEGO TROLLEY SYSTEM MAP

SDTI Accident Summary

Accident Type	SDTI
Train vs Person/Train vs Bicycle/Other Conveyance (with rider) (50%)	12
Train vs Vehicle (45.8%)	11
Mainline Derailment/Yard Derailment (4.2%)	1
Evacuation/Fire/Smoke (0%)	0
Other/Train vs Train/Yard Collision (0%)	0
Grand Total	24

Table 11: SDTI Accidents Primary Causal Factors - Calendar Year 2023

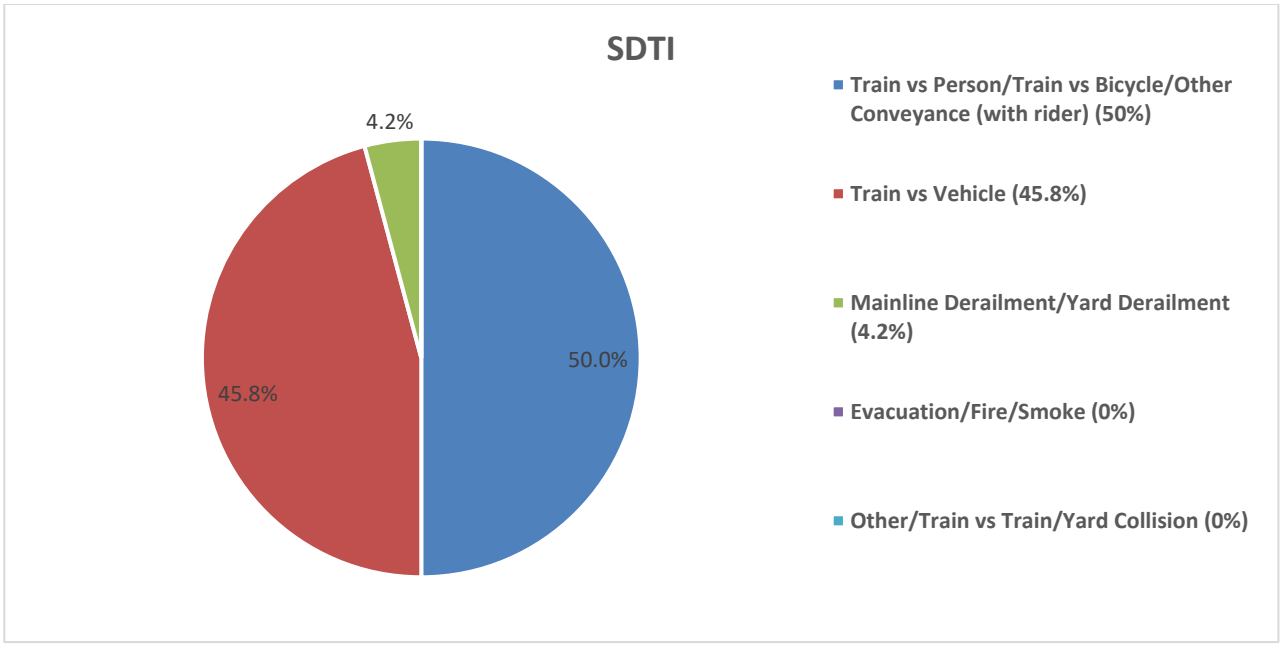


Figure 9: SDTI Accidents Primary Causal Factors - Calendar Year 2023

NOTE: The category "Other" is comprised of all accidents not included in the other categories. These include accidents resulting in substantial damage or evacuations, and a collision with an object such as signs/poles, crossing gates, signal cabinet door, motor vehicles, shopping carts, etc. left on or next to the tracks.

System Expansions and Capital Projects

SD10 Light Rail Vehicle Procurement

SDTI is procuring 47 LRVs known as SD10 project (Car Nos. 5046-5093) to replace the current SD-100 models cars which will be retired from revenue service. The vehicles are the same as the SD9 project vehicles and uses the same safety certification plan approved by Resolution ST-217 (10/11/18) for the SD9 project. The procurement process began September 2020 with an expected schedule completion and acceptance of all 47 LRVs by mid-2025. As Siemens

cars are delivered on-site to the SDTI yard, they will undergo commissioning and dynamics tests. CPUC staff will participate in the acceptance testing throughout the procurement process and to date has accepted 23 LRVs for revenue service.

SD-10 Car No. 5001 on the Greenline

Imperial Transfer Station Double Tracking Project which adds an additional rail line for the Greenline terminus, which is currently single-track, was completed in late-December 2023. The Orange Line Signaling System and Grade Crossing Upgrades Project to replace the current system is planned for Summer 2026.

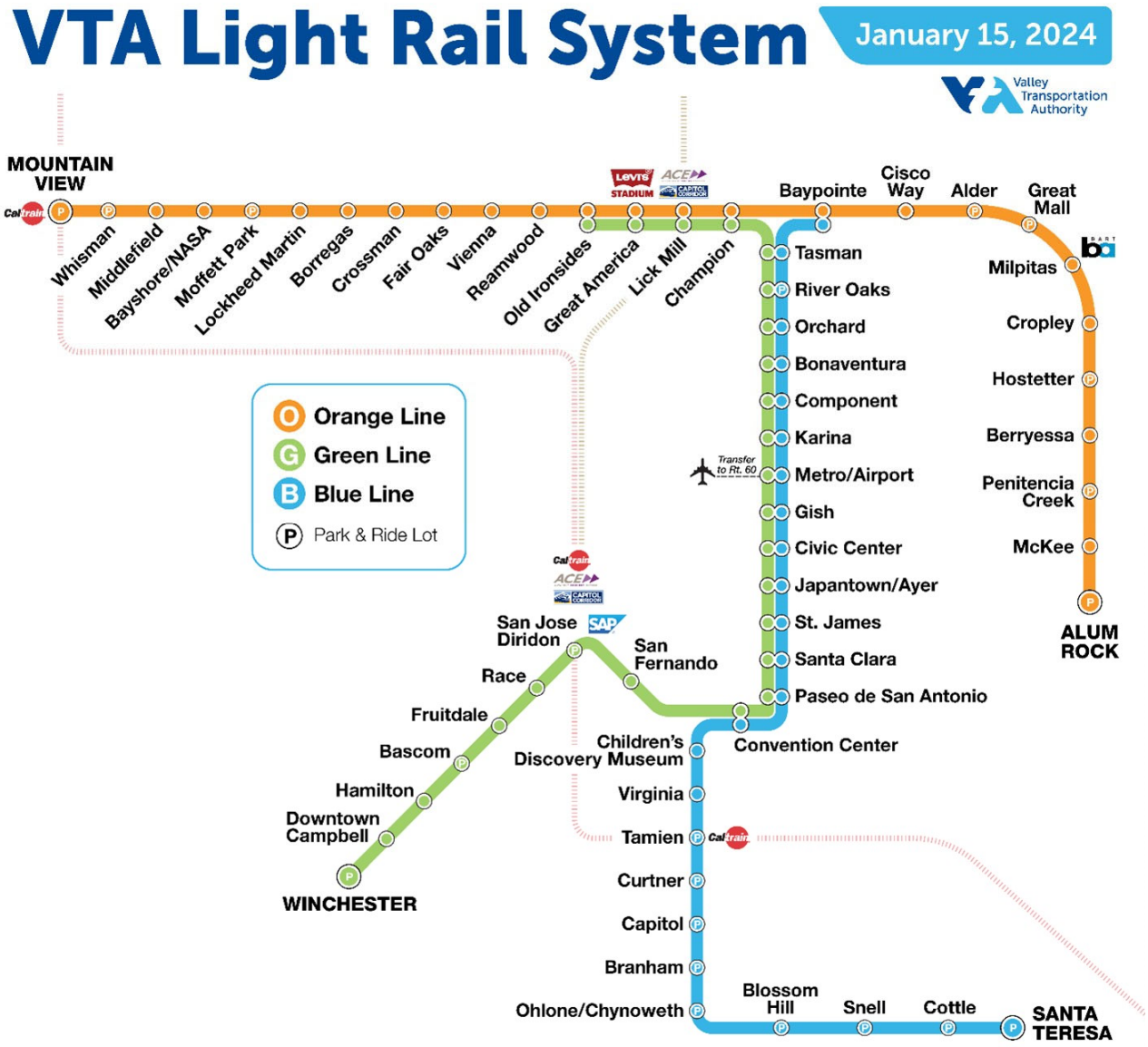
SANTA CLARA VALLEY TRANSPORTATION AUTHORITY

One of the largest transit networks in the San Francisco Bay Area, the Santa Clara Valley Transportation Authority (VTA) is an independent special transit district that operates an urban transit service using a diverse fleet of vehicles and modes (bus, light rail, paratransit) across a 346 square-mile service area serving fifteen (15) cities within Santa Clara County for a population of approximately 2 million residents. VTA currently operates a vehicle service fleet of approximately 98 Light Rail Vehicles, 442 buses, and 194 cars, vans, and shuttle buses. VTA also operates four historic trolleys through the downtown San Jose Transit Mall which occasionally provide service on a seasonal basis.

VTA participates as a funding partner in regional rail services including Caltrain, Capitol Corridor, and the Altamont Corridor Express in Santa Clara County. As Santa Clara County's congestion management agency, VTA is responsible for countywide transportation planning, including congestion management, design and construction of specific highway, pedestrian, and bicycle improvement projects, as well as the promotion of transit-oriented development.

The VTA Board of Directors has eighteen (18) members and six ex-officio members, all of whom are elected officials appointed to serve on the Board by the jurisdictions they represent. Fifteen (15) Directors are city council members and three are County Supervisors. Twelve (12) Directors serve as voting members and there are six Directors who serve as alternates. The ex-officio members are non-voting members and are the three Santa Clara County representatives to the Metropolitan Transportation Commission.

The VTA light rail system consists of three (3) service lines, the Blue, Green, and Orange Lines with two (2) proposed extensions. VTA total operating system consists of approximately about 42.2 miles of trackway with 59 Light Rail Stations.



VTA LIGHT RAIL SYSTEM MAP

VTA Rail System Description

Green Line

The 13.9-mile Green Light Rail Line operates north-south from Campbell to San Jose and Santa Clara. It overlaps the Blue Line between downtown San Jose and north San Jose. The Downtown Transit Mall in San Jose serves as a hub for rail/bus connections. Light rail and Caltrain service connects at the Diridon Station in San Jose. Levi's Stadium is located near the Great America Light Rail Station. The Green Line has 26 light rail stations.

Orange Line

The 17.7-mile Orange Line operates east-west from Mountain View to Alum Rock, with a major transfer point at Baypointe to the Blue Line. Light rail and BART service connects at the Milpitas Station, while the Caltrain connection is at Mountain View. Levi's Stadium is located near the Great America Light Rail Station. The Orange Line has 26 light rail stations.

Vasona Corridor (Part of the Green Line)

Within the 15-mile Vasona Corridor, VTA operates 5.3-miles of its light rail system parallel to Union Pacific Railroad (UPRR) right-of-way sharing 14 highway-rail grade crossings. The Vasona Corridor has 8 light rail stations and links to Caltrain, ACE, and Capitol Corridor service via the Diridon Light Rail Station. This section of corridor is an FRA shared corridor starting just beyond the Diridon Light Rail Station and running up to the Winchester Light Rail Station. UPRR and VTA trackways do not physically share or cross tracks in this corridor.

VTA revenue service began in 2005, VTA performs all dispatching (except for controlling UPRR train movement) and track zone/right-of-way (ROW) maintenance functions in the shared portion of the corridor requiring VTA to comply with specific FRA regulations related to rail operations, trackway, grade crossing warning systems, signals maintenance, and rail safety. The FRA has approved VTA for a 5-year waiver (Docket #FRA-1999-6254) granting full relief from 49 CFR Part 219 and partial relief from 49 CFR Part 225 as of October 6, 2020.

BART Silicon Valley Extension - Phase I

The BART Silicon Valley Extension Project is a 16-mile extension of the BART system to Santa Clara County that is being funded and constructed to BART standards by VTA. VTA will continue to own the assets it funds and constructs, however BART will independently operate the extension of its system. Phase I, the Berryessa Extension, is a 10-mile extension, including two BART stations. This extension begins in Fremont, south of the Warm Springs/South Fremont BART Station, and proceeds along the former UPRR ROW through Milpitas, the location of the first station, to the Berryessa area of North San Jose, the location

Berryessa Transit Center, connection between BART and VTA

of the second station. The Berryessa Extension (Phase I) is now in revenue service, having begun starting June 13, 2020.

VTA Accident Summary

Accident Type	VTA
Train vs Vehicle (44.2%)	19
Other/Train vs Train/Yard Collision (20.9%)	9
Train vs Person/Train vs Bicycle/Other Conveyance (with rider) (20.9%)	9
Evacuation/Fire/Smoke (14%)	6
Mainline Derailment/Yard Derailment (0%)	0
Grand Total	**43**

Table 12: VTA Accidents Primary Causal Factors - Calendar Year 2023

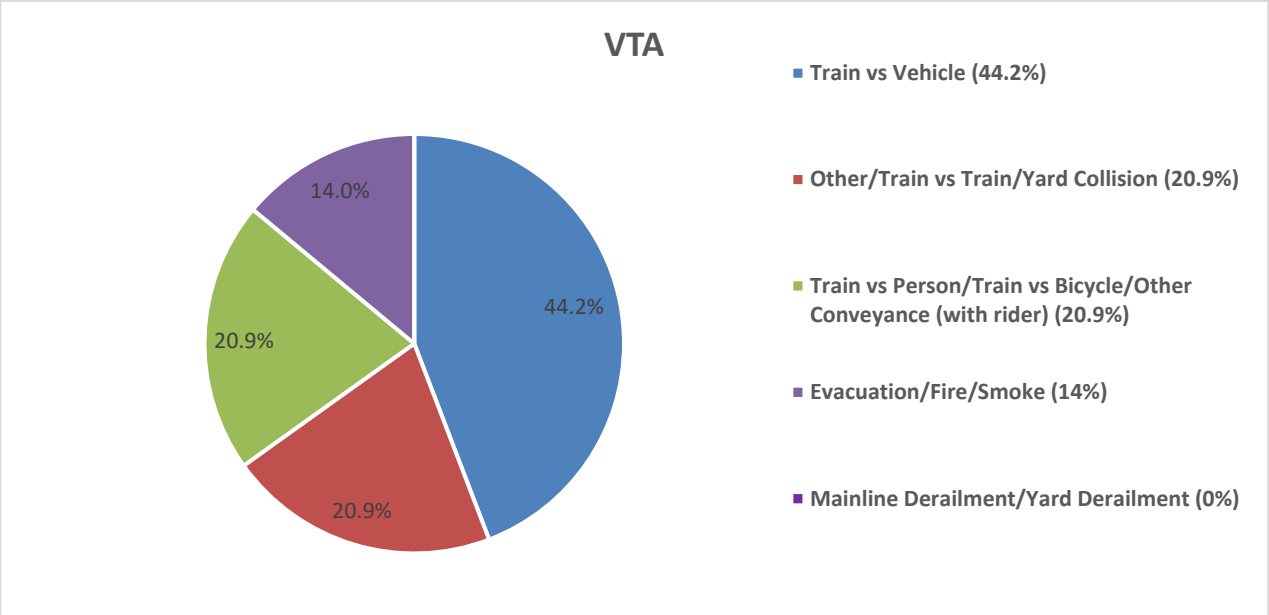


Figure 10: VTA Accidents Primary Causal Factors - Calendar Year 2023

NOTE: The category "Other" is comprised of all accidents not included in the other categories. These include accidents resulting in substantial damage or evacuations, and a collision with an object such as signs/poles, crossing gates, signal cabinet door, motor vehicles, shopping carts, etc. left on or next to the tracks.

System Expansions and Capital Projects

Eastridge to BART Regional Connector Project

The Eastridge to BART Regional Connector project is a 2.6-mile extension from the existing Alum Rock Station to Eastridge Transit Center. The alignment will be primarily grade separated. The project

is being implemented in phases. Phase I was completed in the Spring of 2015, and included the installation of sidewalk, landscape, and street lighting on Capital Expressway from Capital Avenue to Tully Road and the reconfiguration of the Eastridge Transit Center. Phase 2 will extend light rail from the existing Alum Rock Light Rail Station to the Eastridge Transit Center. Light rail will operate primarily in the center of Capitol Expressway in an elevated track structure from Capitol Avenue to Tully Road. The Eastridge extension will include two stations: Story and Eastridge. The SSCP was approved by the CPUC in Resolution ST-88 (5/24/2007), however, VTA provided an updated revision of the SSCP in early 2020 and CPUC reviewed and approved the revision in July 2020. Currently, the project has completed the final engineering design phase and utility relocation is occurring. CPUC staff plan to attend future meetings related to this project.

Vasona Junction Light Rail Extension

The Vasona Junction Project is a 1.5-mile extension from Winchester Station into the Town of Los Gatos. A federal environmental document was completed and approved by the FTA. Currently, the construction schedule is dependent upon available funding. A SSCP has not yet been submitted to the CPUC for this project.

BART Silicon Valley Extension Project – Phase II

The BART Silicon Valley Extension Project is a 16-mile extension of the BART system to Santa Clara County that is being funded and constructed to BART standards by VTA. VTA will continue to own the assets it funds and constructs, however BART will independently operate the extension of its system. Phase I (10 miles) began revenue service in June 2020.

VTA is completing design and engineering for Phase II (6 miles) of the BART Silicon Valley Extension, which includes a subway tunnel through downtown San Jose, 4 stations and a Newhall Yard Maintenance Facility in the City of Santa Clara. Construction of the second phase is expected to begin in 2024 with passenger service targeted for 2036. The SSCP for this project was submitted by BART and was approved by the CPUC in Resolution ST-83 (2/15/2007). On June 16, 2021, CPUC staff received the

Berryessa Transit Center, connection between BART and VTA

project SCP for phase II, and CPUC approval was sent on August 17, 2021, approving the SCP. The project new baseline cost and schedule estimates are total project cost of $12.237B and Revenue Service Date in October of 2036. The Tunnel Boring Machine has been procured. Systems and Facilities design is approximately 30% complete. CPUC staff continues to attend the FTA Project Management Oversight Contractor (PMOC) meetings, Safety and Security Review Committee (SSRC) meetings, and Fire Life Safety and Security Committee (FLSSC) meetings.

Light Rail Signal Priority Detection Upgrades Project:

The work involved is a replacement of the Train-to-Wayside hard-wired system with a new GPS-based LRV detection system to act as primary detection system for requesting transit service priority (TSP) at non-gated signalized intersections. The necessary equipment for the work would be installed on 98 of VTA's light rail vehicles and would be installed at 89 signalized intersections. VTA submitted the project SCP on May 5, 2021. CPUC staff reviewed and approved the project SCP on June 30, 2021. At its August 19, 2021, meeting the Commission approved Resolution ST-245. The first meeting related to this project was conducted in January 2022. CPUC staff continues to attend the Rail Activation Oversight Committee meetings. Ninety-six light rail vehicles have been installed with the necessary equipment. Sunnyvale Pilot Testing is still underway, and the city controller cabinets will be updated with new equipment as needed. Testing plan is being drafted.

New Vehicle Procurement Project (Prototype In progress)

VTA has been continually seeking ways to enhance its transportation infrastructure, focusing on improving the efficiency, resiliency, and sustainability of VTA's public transport system. VTA is exploring the use of the latest advancements in LRV systems and technologies. VTA issued a Request for Information (RFI) on September 22, 2023, to the rail industry to gather insights into the current LRV technologies, trends, and the feasibility of developing a prototype that aligns with VTA's future fleet vision. This initiative has the intention of fleet modernization within reasonable expectations while exploring the latest advancements in rail technologies that VTA can effectively utilize.
Request for Proposals are due in first quarter of 2024 and expect to award a contract by fourth quarter of 2024.

SUMMARY OF ACTIVITIES FOR NON-FTA REGULATED RAIL TRANSIT AGENCIES FOR CALENDAR YEAR 2023

No accident graphs are shown for the smaller non-FTA regulated systems, because only one very minor reportable accident occurred on these smaller systems during the reporting period. Several of the systems have never experienced a reportable accident.

AMERICANA AT BRAND TROLLEY

The Americana At Brand (AAB) trolley began service in 2008 and is owned by Caruso Affiliated in the City of Glendale in Los Angeles County. The AAB trolley operates on a single track that travels around the AAB shopping center from Americana Way to Caruso Avenue. The AAB trolley is a single-story vehicle mounted on the undercarriage of a circa early 1900s trolley from City of Milan, Italy. The trolley is powered by on-board batteries and has a detachable unpowered car.

The AAB trolley operates on a length of track of about one third mile and is capable of speeds of up to 5 miles per hour. The trolley is operated by two-person teams and can seat up to 72 passengers. Caruso Affiliated utilizes contracts with LAZ Parking to operate the trolley with properly trained operators and Midwest Trolley Services to provide maintenance of the trolley.

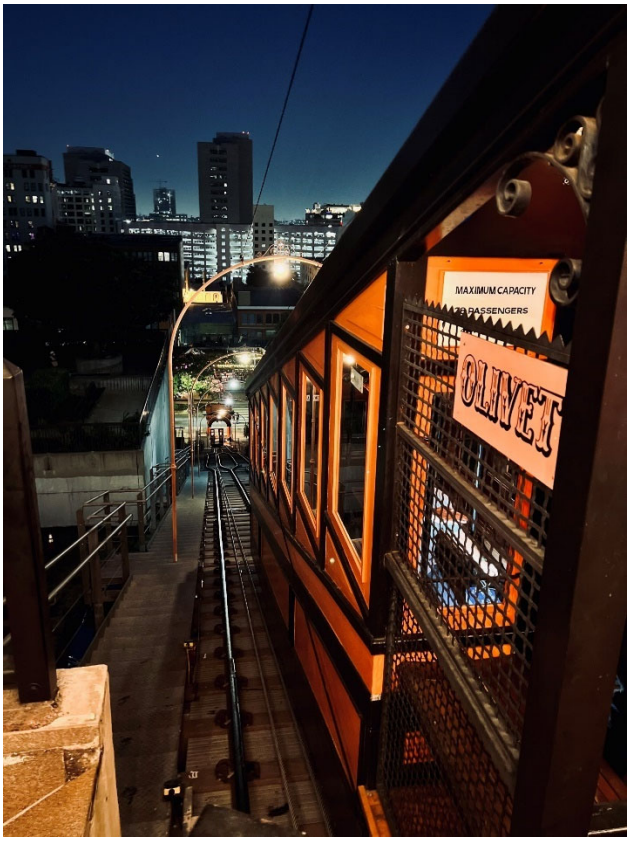
Americana At Brand Trolley

ANGELS FLIGHT RAILWAY COMPANY FUNICULAR

Angels Flight is a landmark funicular railway that was originally built in 1901 in the Bunker Hill region of downtown Los Angeles. Between 1901 and 1969, Angels Flight was owned by 6 different entities, with the funicular eventually coming under the control of the now defunct Community Redevelopment Agency of the City of Los Angeles (CRA/LA). CRA/LA was the owner of Angels Flight and dismantled the funicular in 1969.

In 1996, after 27 years of storage, CRA/LA oversaw the project to restore and reconstruct Angels Flight. The funicular was reopened to the public after being reinstalled half a block south of its 1969 location, now located between 3rd and 4th Streets on Hill Street in downtown Los Angeles. Since 1997, Angels Flight has been effectively owned by the Angels Flight Railway Foundation (AFRF) through a 99-year long-term ground lease.

When the system was rebuilt, several modifications were made to the drive and braking systems. In 2001, the modified drive system failed and one of the cars rolled freely down the 33-degree incline before striking the other car. One passenger was killed, because of the accident, five passengers received serious injuries, and two passengers received minor injuries. The accident was thoroughly investigated by the CPUC and the NTSB. The funicular was taken out of revenue service and shut down for several years because of this accident. NTSB investigators made specific recommendations for a track-adjacent emergency walkway and raising the end doors to prevent passenger ejection in the event of an accident.



Angels Flight Railway Company Funicular

In January 2007, AFRC personnel notified CPUC staff of their intent to refurbish and re-open Angels Flight. AFRC contracted engineering and manufacturing services to refurbish Angels Flight. After CPUC staff's review of the system upgrades and approval of their request to place the system back in service, Angels Flight was once again reopened to the public in March 2010, with improved safety features. The improvements included a secondary safety cable, redundant fail-safe braking, and fail-safe carrier track brakes. The mechanical drive was once again redesigned, a state-of-the art controller was installed, and the system was refurbished in conformance with funicular standards developed by the

American National Standards Institute (ANSI B77.2 – 2004). NTSB noted upon reopening that the CPUC had not required implementation of the two NTSB recommendations from the 2001 accident. CPUC staff noted at the time that the ANSI Standards did not specifically require such additions. The system operated from then until a further accident in 2013.

In September 2013, a derailment of one of the cars occurred in which a downward moving car derailed. Although there were no injuries during the derailment, and it resulted in only minor displacement with just the wheel dropping off the track, this was a serious incident. Several contributing factors were identified as causes of the derailment, including improper operating practices that bypassed safety functions of the funicular system, inadvertent carrier brake activation, and carrier brake design issues. The system remained out-of-service for over three years.

In late 2016, AFRF notified CPUC staff that it had acquired engineering services to address the system and operational failures that lead to the 2013 derailment and intended to bring the system back into service. CPUC staff indicated they would not support such a request unless and until AFRF submitted a SCP to safety certify any changes to the system and implemented the remaining NTSB recommendations from the 2001 accident (track-adjacent emergency walkway and raised end doors). The AFRF agreed and submitted to CPUC staff a SCP and designs for the walkway and end doors. The SCP was approved by the CPUC in Resolution ST-197 (1/19/2017). On August 31, 2017, the system was brought back into service after CPUC approval of the Safety Certification Verification Report (SCVR) with new operational management under the Angel's Flight Development Company (AFDC).

During 2018 and 2019, the CPUC staff worked closely with the AFDC to review the funicular system for its compliance with all ANSI B77.2 Standards, including those whose strict compliance is not required due to the vintage of the system. CPUC staff also conduct frequent inspections and meetings with AFDC personnel regarding the operations of the system.

With Angels Flight's resumption of service, the NTSB reviewed the approved SCVR submitted to the CPUC by AFDC, which verifies all actions taken outlined in CPUC Resolution ST-197 and addresses all areas of NTSB Safety Recommendation R-13-37. On January 6, 2021, NTSB concluded the CPUC and AFDC met all requirements and have classified NTSB Safety Recommendation R-13-37 as "Closed – Acceptable Action."

On May 19, 2022, Angels Flight conducted System Dynamic Testing and Inspection and completed the major open item requirement from the ANSI B77.2 – 2014 Edition §2.3.4.2 - Compliance Statement.

CPUC staff is continuously monitoring Angels Flight's operations status and monthly fault logs to ensure system safety.

GETTY CENTER MUSEUM AUTOMATED PEOPLE MOVER

The Getty Center Tram is an Otis Hovair APM located in the City of Los Angeles serving the J. Paul Getty Center Museum. The Getty Center Tram was opened at the end of 1997. It is an electric, cable-driven hover train, with 2 tram sets of 3 cars each. When both three-car trains are operating, it has the capability of transporting 1,200 passengers per hour in each direction.

The Tram is located north of Brentwood in the Westside Region of Los Angeles and links a street-level parking area to the Getty Center Museum, located on a hilltop three-quarters of a mile away. The lower station at the bottom of the hill lies beside Sepulveda Boulevard and the San Diego Freeway. The upper station at the top of the hill is located in the arrival plaza of the museum and is part of the museum structure. The tram guideway follows the Getty Center Drive and has a bypass section mid-route.

Getty Center Tram

Unlike most train cars, which are wheeled vehicles, the Getty Center Tram is suspended by a cushion of air. When the air suspension system is deactivated, the vehicle rests on a series of skids which also serve as a part of the emergency braking system. Otis company personnel operate and maintain the system under contract.

Although the Getty Center Tram started operating in 1997, it was not until 2013 that the CPUC asserted jurisdiction for safety oversight of the system following an evaluation of unregulated rail fixed guideway systems throughout California. CPUC staff worked with Getty personnel to develop the initial Getty System Safety Program Plan (SSPP) meeting CPUC GO 164 series requirements. Full implementation of the SSPP commenced in January 2015. More recently, Getty personnel developed a Public Transportation Agency Safety Plan (PTASP) Revision 0, which was revised as Revision 1 per CPUC comments and approved by CPUC in January 2022. In February 2022, Getty personnel submitted PTASP Revision 2 with minor revisions. Based on CPUC comments, Getty revised and resubmitted PTASP Rev 2 in November 2022, which was approved by CPUC in December 2022.

Getty personnel are actively engaged in the planning and execution of the Tram Renovation Project. Key project objectives include the modernization of the tram control system, with considerations for potential updates to the tram cars and propulsion system. The Request for Proposal (RFP) has

undergone a comprehensive review. The project team recommended the winning team to the selection committee in late 2023. The final selection of the winning team is expected to take place in early 2024.

Getty Tram System Map

GROVE TROLLEY

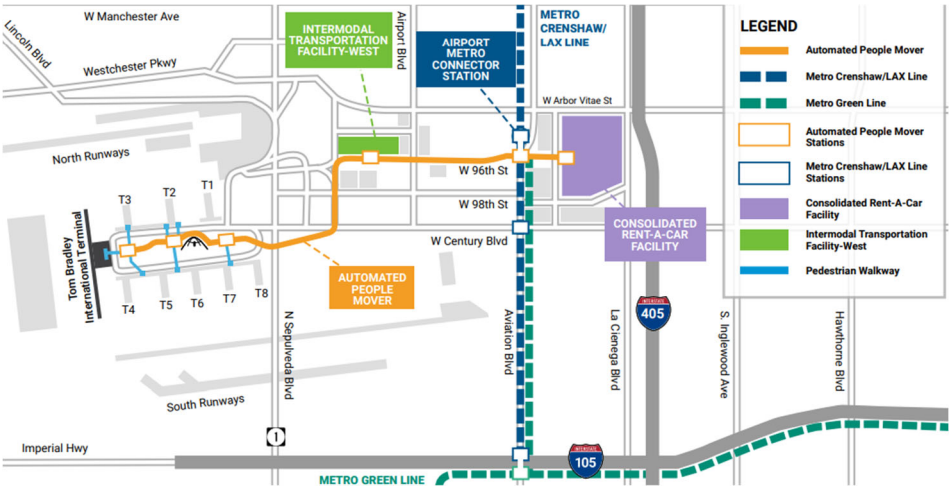
The Grove Trolley began operation in 2002 and is owned by Caruso Affiliated in the City of Los Angeles. The Grove Trolley operates on a single track that travels along First Street between The Grove open air shopping center and the Original Farmers Market. The Grove Trolley is built on a historic undercarriage from a Boston streetcar of the 1950s. It is double-deck and open-air, with two spiral staircases that lead to the upper deck. The trolley is powered by on-board batteries and computerized digital controllers manage all trolley functions.

The Grove Trolley operates on a length of track of about one quarter mile and is capable of speeds of up to 5 miles per hour. The trolley is operated in two-person teams and can seat up to 56 passengers. Caruso Affiliated utilizes contracts with LAZ Parking to operate the trolley with properly trained operators and Midwest Trolley Services to provide maintenance of the trolley.

Grove Trolley

LOS ANGELES WORLD AIRPORTS AUTOMATED PEOPLE MOVER

Los Angeles World Airports (LAWA), the governing body of Los Angeles International Airport (LAX), is developing a multi-billion-dollar upgrade to the ground transportation system at LAX. The project is known as the LAWA Landside Access Modernization Program. The project will add six stations and elevated guideway between the terminals and ground transportation options. Three new Central Terminal stations will connect to stations at the new Consolidated Rent-A-Car facility, airport parking, and LACMTA rail transit and bus facilities. The Airport Metro Connector (AMC), which will later be known as LAX/Metro Transit Center, will be a multilevel station connecting the LAX APM East Intermodal Transportation Facility (EITF) to the new LACMTA K Line (formerly Crenshaw/LAX Line). On October 7, 2022, the K Line partially opened with Westchester/Veterans Station as its temporary southern terminus, because the remaining southern segment of the K Line is closed due to the construction of the AMC Station.



Los Angeles World Airports Proposed Rail System

The stations in the Central Terminal Area will provide fast and easy connections to nine airline terminals with a pedestrian walkway system leading to the terminal stations. The project SCP was approved by the Commission in Resolution ST-212 (10/11/2018). LAWA broke ground on the APM project in March 2019 and the APM is expected to open in 2024.

Forty-four cars will be built for the APM system, and the first cars arrived at the LAX site in June 2022. As of December 20, 2023, there were 36 cars onsite at LAX. In 2023 vehicles have started to undergo testing in the Maintenance and Storage Facility, but not yet in the main guideway. Planning has commenced for emergency drills and tabletop exercises, and coordination with

LACMTA continues for the future AMC Station.

As of December 20, 2023, station construction progress is at 93% completion and guideway construction/installation finishes are at 94% completion. In 2023, CPUC staff made seven field visits to the LAX APM site to witness project tests and discuss car history book documentation.

SACRAMENTO COUNTY DEPARTMENT OF AIRPORTS AUTOMATED PEOPLE MOVER

Automated People Mover at Sacramento International Airport

The SCDOA installed and operates an APM between its central terminal and B gates concourse. The APM System includes a completely automated dual lane shuttle offering passengers a connection between the Central Terminal B and Airside Concourse B, with an emergency/backup walkway located between guideways. Two passenger stations with flow-through configurations (one center platform and two side platforms) are in the Central Terminal building and the B Concourse building.

SCDOA has contracted with Bombardier (now Alstom) for the design, supply, installation, operation, and maintenance of the APM system. The complete system includes power distribution, power rail and vehicle power collector assemblies and interface, communication system, communications-based train control system required to operate the system, automatic station platform doors, and CX-100 vehicles.

The CX-100 vehicle is a fully automated, air-conditioned vehicle capable of operating in various modes twenty-four hours per day. A maintenance facility, including the Central Control Room, is located on level one under Concourse B station.

SCDOA underwent a triennial audit in 2019 and the final safety report and security report were approved by the Commission in March 2021.

SAN FRANCISCO INTERNATIONAL AIRPORT AIRTRAIN AUTOMATED PEOPLE MOVER

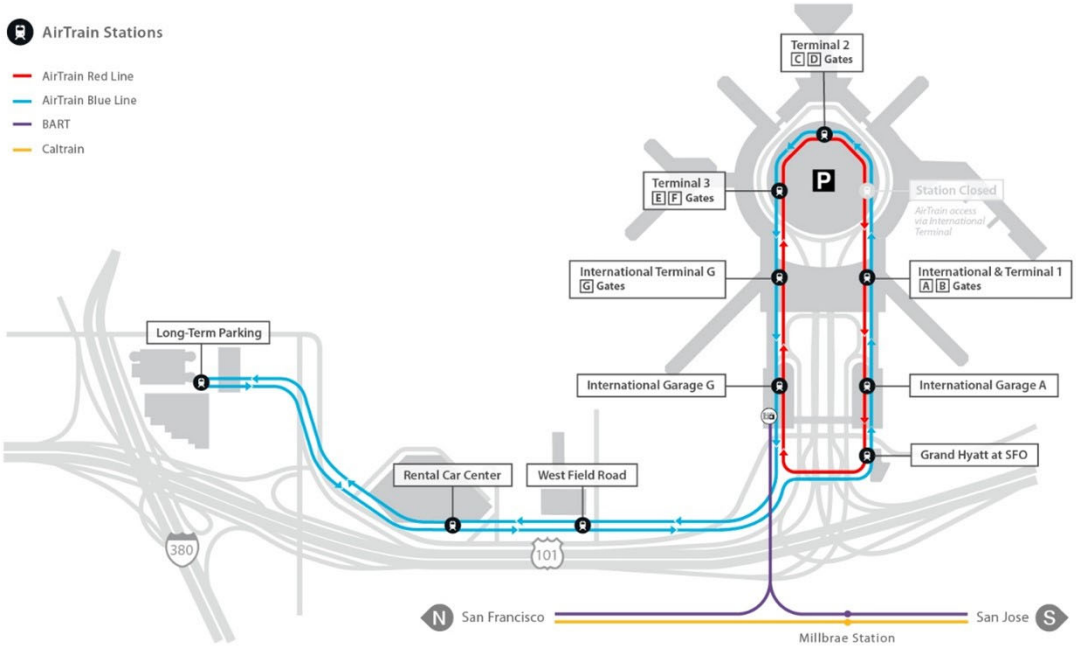
San Francisco International Airport AirTrain Automated People Mover

The San Francisco International Airport AirTrain APM system began operation on February 24, 2003, as a six-mile system. It operates 24 hours every day, providing free service throughout the San Francisco International Airport. The AirTrain was originally contracted to Bombardier (now Alstom) as a design-build-operate-maintain project. The system is owned by the San Francisco Airports Commission and currently operated and maintained by Alstom.

With a fleet of 42 CX-100 vehicles including a Maintenance Recovery Vehicle, the 6-mile system serves nine stations connecting all the airport's terminals, hotel, parking garages, the Rental Car Center and an external connection to the BART Airport Station.

CPUC staff conducted a triennial audit of the AirTrain system in 2019. The final report has not yet been approved.

San



Francisco International Airport AirTrain System Map

SYSTEMS IN DEVELOPMENT OR FUNDING STAGES

LOS ANGELES STREETCAR

The Los Angeles Streetcar is a project in Downtown Los Angeles (DTLA) that is advancing under the Community Facilities District that is a special tax voted by area residents. Additional funding sources include an FTA Small-Starts Grant, Los Angeles County Measure M transportation funding, and some elements of Public-Private Partnerships. In 2013, the Los Angeles City Council approved $295 million in operations funding. The Los Angeles Streetcar is proposed as an urban circulator that was designed to meet the needs of DTLA residents, commuters, and tourists. The 3.8-mile route will run approximately 18 hours a day to connect South Park, the Financial District and Historic Broadway, Grand Park and the Civic Center, the Fashion District and the Convention Center, Crypto.com Arena, and LA Live.

The Los Angeles Streetcar will also serve as a much-needed connector to key local and regional bus and rail lines, serving as the first/last mile solution needed to bridge the gaps in DTLA's existing public transportation system. LACMTA is assisting the City of Los Angeles on the project. In 2019 the project received Federal National Environmental Policy Act clearance and California Environmental Quality Act clearance. A SCP will be submitted to CPUC in the future if the project is funded and approved.

Los Angeles Streetcar Proposed System Map

INGLEWOOD TRANSIT CONNECTOR PROJECT

The City of Inglewood has proposed an elevated APM that aims to address a first/last mile gap in Los Angeles County's public transportation network. This proposed project will connect the LACMTA's K-Line Downtown Inglewood Station to the City's housing and employment centers, and sports and entrainment venues. The project, which will be 1.6 miles in length, will feature three stations, a maintenance and storage facility, two power distribution system substations, and three new park and ride lots along the route.

In March 2021, LACMTA's Board approved the formation of the Inglewood Transit Connector Joint Powers Authority (JPA) with the City of Inglewood to implement and operate the project. The City of Inglewood is the lead agency for the project and is responsible for overseeing various aspects. On January 31, 2023, the California State Transportation Agency awarded a $407 million grant to assist with the construction. Currently, the City of Inglewood and the JPA are working with the FTA to secure additional funding through a Capital Investment Grant. This project, which will be a Design Build Finance Operation and Maintenance (DBFOM) project, is expected to break ground in 2024 with the goal of providing passenger service in time for the 2028 Olympics.

The Inglewood Transit Connector (ITC) Project recently gained approval for a substantial federal investment of $1 billion. This significant funding infusion represents a pivotal move for the project, propelling it closer to the attainment of full financial support.

Inglewood Transit Connector Proposed System Map

SUMMARY

This Annual Report, as required by Code of Federal Regulation, Title 49, Sections 674.13(a)(7) and 674.39(a), provides a summary of the activities of California's State Safety Oversight program for Rail Fixed Guideway Public Transportation Systems.

The California Public Utilities Commission (CPUC) continues with its ongoing safety and security oversight activities for Rail Transit Agencies (RTAs). The Federal Transit Administration certified CPUC as California's State Safety Oversight Agency (SSOA) on October 23, 2018. The CPUC's SSOA program has been a national leader for years and continues to lead in developing a rail transit field inspection program, a citation program, on-line tools for reporting accidents and tracking corrective action plans, and other areas that improve safety.

In 2015, the CPUC undertook a strategic planning process to assess new developments in the industries it regulates, develop priorities for the agency and create an action plan that would align the CPUC's responsibilities and goals. CPUC Commissioners and staff were extensively involved in the development of the Strategic Directives (SDs) - a set of high-level goals to guide the CPUC's daily activities and responsibilities. The document was updated in February 2020. The CPUC's rail transit safety oversight program, along with the other rail safety programs under the Rail Safety Division, feed into the following CPUC SDs:

- SD-02, regarding risk management, safety quality improvement, safety assurance, and safety and the CPUC's promotion of continuous improvement of safety culture, based on processes adopting the concepts of Safety Management Systems;
- SD-03, regarding assuring regulated systems are resilient and capable of recovering from adverse events, and have proactive maintenance programs that are adequate, verifiable, and auditable;
- SD-05, regarding promotion of compliance with applicable laws, standards, and regulations; enforcement of applicable laws, rules, and regulations in a fair, consistent, and timely manner; promote individual and organizational accountability within regulated entities; and continually improve oversight efforts through regular periodic reviews of CPUC compliance and enforcement efforts;
- SD-08, regarding responsibly administering of, and investing in, CPUC human resources by providing relevant and practical training and mentoring to staff; performing comprehensive workforce and succession planning; maximizing the efficiency and effectiveness of the agency where possible; using moder technology to help CPUC employees perform their job effectively; and being a prudent steward of public funds;
- SD-09, regarding engaging in open communications with CPUC staff and outside stakeholders, by increasing awareness of and engagement in the work of the CPUC, both internally and externally; communicating the CPUC's role in facilitating the safe and reliable delivery of services by regulated entities to diverse stakeholders; providing the public with accurate information and documents in a timely manner; and supporting an organization-wide culture

and core values through dialogue, critical thinking, learning, innovation, collaboration, and collegiality;

- SD-10, regarding to impartial, fair, consistent, and transparent decision-making process, by implementing procedures, practices, and rules for decision-making that are consistent, understandable, and accessible to the public, interested persons, and parties; and ensuring decision-making documents in the administrative record are logged and available to the public to the extent allowed by law, and that accessibility to the record is regularly assessed and enhanced; and
- SD-11, regarding collaboration and coordination with local, state, and federal entities, as appropriate, by communicating within the CPUC and to stakeholders the agreed-upon roles and responsibilities of the CPUC and its governmental partners; coordinating with governmental entities on the effective and efficient regulation and delivery of services; assessing the results of governmental collaboration and continuously working to improve it, and giving due deference to adopted policies and decisions of other state and federal agencies.

In 2023 CPUC initiated a project to develop a risk-based inspection (RBI) program, as directed by the Federal Transit Administration (FTA). CPUC started holding meetings with the federally funded rail transit agencies to develop procedures for data collection, sharing, and analysis. In 2024 CPUC plans to continue its efforts on this project and to submit a package of required information to the FTA, to demonstrate it has developed an RBI program, as directed.

For 2024 CPUC's Rail Transit Safety Branch will continue its rail transit safety oversight activities including inspections of facilities and operations, oversight of capital projects, and investigations of accidents and other incidents of rail transit agencies. Plans for 2024 also include recommending to the Commission to initiate a rulemaking to revise its General Order 143-B; continue developing the new Rail Safety and Security Information Management System (RSSIMS) database; adjusting its inspection program to meet new federal mandates on risk-based inspection program; update the RTSB workload assessment to determine and justify the resource needs for additional CPUC staff to oversee the expanding California rail transit network; and continue work on developing an on-line system for improved processing and monitoring of corrective action plans.